FLORIAN CAJORI

from the Author FOUR-FIGURE

MATHEMATICAL TABLES

NRW ARD BNILERSED REFERENCE

CARGILL G. KNOTT, D.Sc., P.R.S.E.

ERCTURES ON APPLIED MAPHEMATICS IN THE CHIPMEMITY OF TECHNICISM, AND PORNISSEY PROPERTY OF PRIVACE OF THE INFERIAL UNIVERSITY OF TOUTO, LAFAN

UC-NRLF

905

\$ R 27A 840

Ciorii, . . 8d, net

May also he had in Paper, Price 4d, net.

LONDON: 38 Soko Square, W. V. & R. CHAMBERS LIMITED

EDINBURGH : 339 High Street

17341 (1)

CONTENTS.

		PAGES
I.	Useful Numbers with their Logarithms	1
11.	Four-Figure Logarithms of Numbers, with Differences,	
	from 100 to 999, and from 1000 to 1109	2, 3
	Anti-logarithmic Table, with Differences, from log '000	
	to log '999	4, 5
	Napierian Logarithms of Numbers from 0.1 to 5.09;	
	with Subsidiary Table	6
III.	Logarithms of Sines and Tangents of Small Arcs up	
	to 8°, increasing by Minutes	7
	Logarithms of the Circular Functions (Sine, Cosine,	
	Tangent), and the Functions themselves, of Angles	
	or Arcs increasing by 0.1 of a Degree or 6 Minutes,	
	with Differences to Minutes:	
	Logarithms of Sines, Cosines, Tangents	8-13
	Natural Sines, Cosines, Tangents, Cotangents,	
	Secants, Cosecants	14-25
IV.	Secants, Cosecunts Chords to every Derect Briad Tipe a Degree from 1° to 180°	
		26
V.	Circular Functions, with ELogarithms, of Arcs	
	measured in Radia NATIVER SOLVO a Radian to 1.57	
	of a Radian that is, for The First Quadrant. (Equi-	
	valents in Degrees Contered should the margin)	27, 28, 29
VI.	Numbers from 1 to 100 with the Reciprocal, Square,	
	Cube, Square-Root, and Cube-Root of each number,	
	and the Cube-Root of ten times each number	30, 31
	Reciprocals of Numbers to the first four figures	32, 33
	Prime Numbers from 101 to 2011	33
	Squares of Numbers to the first four figures	34, 35
	Cubes of Numbers to the first four figures	36, 37
VII.		38
	Compound Interest Table—showing 'Present Value'	
	of £1	39
VIII.	Positive and Negative Powers of the Exponential	114 0 3
	Constant e (=2.71828), with the closely related	1
	Hyperbolic Sines, Cosines, and Tangents (sinh, cosh,	
	tanh), and the Logarithms of the Sines and Cosines	
	(log sinh and log cosh)	40

A special feature of the Tables of the Circular Functions is the prominence given to the true scientific unit of angle—namely, the Radian. The pupil cannot be introduced too soon to this conception; and most of the Tables included in Parts III. and V. give the angles in both the natural and conventional units. Table V., which, so far as the compiler knows, is now (1905) published for the first time, will be found of great service in graphical construction and in the graphical solution of equations involving the circular functions.

17/0

USEFUL NUMBERS WITH THEIR LOGARITHMS.

METRIC SYSTEM.

1 metre	=39·370113 in. = 3·280843 ft. = 1·0936 yd. = 0·62137 ml.	Log. 1·59517 ·51599 ·03886 1·79335	1 in. = 2.54 cm. 1 ft. = 30.48 cm. 1 yd. = 0.9144 m. 1 ml. = 1.6093 Km.	Log. '40483 1'48401 7'96114 '20665
1 (m.) ² 1 (Km.) ⁵	=10.7639 (ft.) ² = 1.196 (yd.) ² = 0.3861 (ml.) ²	1.03197 .07773 1.58670	1 (in.) ² = 6.4516 (cm.) ² 1 (yd.) ² = 0.8361 (m.) ² 1 (ml.) ² = 2.59 (Km.) ²	80967 1·92227 ·41330
1 hectar 1 (m.) ³	re = 2.4716 acres = 1.308 (yd.)3	·39298 ·11659	1 acre = 0.4046 hectare 1 (yd.) ³ = 0.7646 (m.) ³	1.60702 1.88341
1 litre	=61.0238 (in.)3 = 1.76 pint = 0.22 gallon	1.78550 -24546 1.34237	1 (in.) ³ = 16.387 (cm.) ³ 1 pint = 0.568 l. 1 gallen = 4.546 l.	$\begin{array}{ c c c }\hline & 1.21450 \\ \hline & 1.75454 \\ & .65763 \\ \hline \end{array}$
1 gram 1 Kg.	=15.43236 gr. = 2.20462 lb.	1·18843 ·34333	1 gr. = 0.0648 g. 1 lb. = 0.4536 Kg.	$\frac{2.81157}{1.65667}$
	M A	THEM A TIC	AL CONSTANTS.	
	r = 3·14159265=	3·1416 or 22/7 n	The state of the s	Log. '49715 1.75812
1/:	r/3 = 4.1888	Log. ·19612 ·62209 1·50285 2·24188	$ \begin{array}{rcl} \pi^2 & = 9.8696 \\ 1/\sqrt{\pi} & = 0.5642 \\ \frac{3}{4}\sqrt{3}/4\pi & = 0.62035 \\ \frac{9}{6}/\pi & = 1.24070 \end{array} $	$ \begin{array}{c} $
	e = 2.7182818 e = 2.3025851	or exp. (2	$e^{\tau/2} = 4.8105$ $e^{3025851} = 10.$	68219
	F	or nowers of a	coo Table on n. 20	

For powers of e, see Table on p. 32.

DYNAMICAL CONSTANTS.

_			-	TIDITITIO.	
g = 32.2 ft./(sec.)	2	Log. 1 50786		g = 981 cm./(sec.) ²	Log. 2.99167
1 lbwt. = 4.45×10^5 dyr 1 ftlb. = 0.1383 Kgm = 1.356×10^7 erg	.	5·64836 1·14078 7·13245		106 dynes = 2·247 lbwt. 1 Kgm. = 7·231 ftlb. 108 ergs = 7·371 ftlb.	°35164 °85922 °86755
1 lb.	-wt./(i	= 14° = 1°	7 lb. 034 l 31 gr	(106 dynes/(cm.) ² -wt./(in.) ² Kgwt./(cm.) ² -unwt./(cm.) ² bwt./(in.) ²	6:00604 1:16732 :01437 1:84702 1:18298

						_		_					Mea	an I	Diff	erei	ıces	3.	_
	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9.
10 11 12 13 14 15	0000 0414 0792 1139 1461 1761	0043 0453 0828 1173 1492 1790	0086 0492 0864 1206 1523 1818	0128 0531 0899 1239 1553 1847	0170 0569 0934 1271 1584 1875	0212 0607 0969 1303 1614 1903	0253 0645 1004 1335 1644 1931	0294 0682 1038 1367 1673 1959	0334 0719 1072 1399 1703 1987	0374 0755 1106 1430 1732 2014	4 4 3 3 3 3	8 8 7 6 6 6	12 11 10 10 9 8	15 14 13 12	21 19 17 16 15	23 21 19 18	26 24 23 21	33 30 28 26 24 22	
16 17 18 19 20	2041 2304 2553 2788 3010	2068 2330 2577 2810 3032	2095 2355 2601 2833 3054	2122 2380 2625 2856 3075	2148 2405 2648 2878 3096	2175 2430 2672 2900 3118	2201 2455 2695 2923 3139	2227 2480 2718 2945 3160	2253 2504 2742 2967 3181	2279 2529 2765 2989 3201	3 2 2 2 2 2	5 5 4 4	8 7 7 6	10 9 9		15 14 13	17 16 16	21 20 19 18 17	$\frac{22}{21}$
21 22 23 24 25	3222 3424 3617 3802 3979	3243 3444 3636 3820 3997	3263 3464 3655 3838 4014	3284 3483 3674 3856 4031	3304 3502 3692 3874 4048	3324 3522 3711 3892 4065	3345 3541 3729 3909 4082	3365 3560 3747 3927 4099	3385 3579 3766 3945 4116	3404 3598 3784 3962 4133	2 2 2 2 2 2	4 4 4 3	6 6 5 5	8 7 7			14 14 13 12 12	15 14	18 17 17 16 15
26 27 28 29 30	4150 4314 4472 4624 4771	4166 4330 4487 4639 4786	4183 4346 4502 4654 4800	4200 4362 4518 4669 4814	4216 4378 4533 4683 4829	4232 4393 4548 4698 4843	4249 4409 4564 4713 4857	4265 4425 4579 4728 4871	4281 4440 4594 4742 4886	4298 4456 4609 4757 4900	2 2 2 1 1	3 3 3 3	5 5 4 4	7 6 6 6 6	8 8 8 7 7	10 9 9 9	$^{11}_{11}_{10}$	13 13 12 12 11	14 14 13
31 32 33 34 35	4914 5051 5185 5315 5441	4928 5065 5198 5328 5453	4942 5079 5211 5340 5465	4955 5092 5224 5353 5478	4969 5105 5237 5366 5490	4983 5119 5250 5378 5502	4997 5132 5263 5391 5514	5011 5145 5276 5403 5527	5024 5159 5289 5416 5539	5038 5172 5302 5428 5551	1 1 1 1	3 3 3 2	4 4 4 4	6 5 5 5 5	7 7 6 6 6	8 8 8 7	9 9	11 11 10 10 10	12 12 11
36 37 38 39 40	5563 5682 5798 5911 6021	5575 5694 5809 5922 6031	5587 5705 5821 5933 6042	5599 5717 5832 5944 6053	5611 5729 5843 5955 6064	5623 5740 5855 5966 6075	5635 5752 5866 5977 6085	5647 5763 5877 5988 6096	5658 5775 5888 5999 6107	5670 5786 5899 6010 6117	1 1 1 1	2 2 2 2 2	4 3 3 3	5 5 4 4	6 6 5 5	7 7 7 6	8 8 8 8	10 9 9 9	11 10 10 10 10
41 42 43 44 45	6128 6232 6335 6435 6532	6138 6243 6345 6444 6542	6149 6253 6355 6454 6551	6160 6263 6365 6464 6561	6170 6274 6375 6474 6571	6180 6284 6385 6484 6580	6191 6294 6395 6493 6590	6201 6304 6405 6503 6599	6212 6314 6415 6513 6609	6222 6325 6425 6522 6618	1 1 1 1	2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5 5	6 6 6 6	7 7 7 7	8 8 8 8	9 9 9 9
46 47 48 49 50	6628 6721 6312 6902 6990	6637 6730 6821 6911 6998	6646 6739 6830 6920 7007	6656 6749 6839 6928 7016	6665 6758 6848 6937 7024	6675 6767 6857 6946 7033	6684 6776 6866 6955 7042	6693 6785 6875 6964 7050	6702 6794 6884 6972 7059	6712 6803 6893 6981 7067	1 1 1 1	2 2 2 2 2	3 3 3 3	4 4 4 3	5 5 4 4 4	6 5 5 5 5	7 6 6 6 6	7 7 7 7	8 8 8 8
51 52 53 54 55	7076 7160 7243 7324 7404	7084 7168 7251 7332 7412	7093 7177 7259 7340 7419	7101 7185 7267 7348 7427	7110 7193 7275 7356 7435	7118 7202 7284 7364 7443	7126 7210 7292 7372 7451	7135 7218 7300 7380 7459	7143 7226 7308 7388 7466	7152 7235 7316 7396 7474	1 1 1 1	2 2 2 2 2	3 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5 5	6 6 6 5	7 7 6 6 6	8 7 7 7
56 57 58 59 60	7482 7559 7634 7709 7782	7490 7566 7642 7716 7789	7497 7574 7649 7723 7796	7505 7582 7657 7731 7803	7513 7589 7664 7738 7810	7520 7597 7672 7745 7818	7528 7604 7679 7752 7825	7536 7612 7686 7760 7832	7543 7619 7694 7767 7839	7551 7627 7701 7774 7846	1 1 1 1	2 2 1 1 1	2 2 2 2 2 2	3 3 3 3	4 4 4 4 4	5 5 4 4 4	5 5 5 5 5	6 6 6 6	7 7 7 6

												М	ear	ı D	iffe	ren	ces	3.	
	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
60 61 62 63 64 65	7782 7853 7924 7993 8062 8129	7789 7860 7931 8000 8069 8136	7796 7868 7938 8007 8075 8142	7803 7875 7945 8014 8082 8149	7810 7882 7952 8021 8089 8156	7818 7889 7959 8028 8096 8162	7825 7896 7966 8035 8102 8169	7832 7903 7973 8041 8109 8176	7839 7910 7980 8048 8116 8182	7846 7917 7987 8055 8122 8189	1 1 1 1 1	1 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3 3 3	4 4 3 3 3 3	4 4 4 4 4	5 5 5 5 5 5	6 6 5 5 5	6 6 6 6 6
66 67 68 69 70	8195 8261 8325 8388 8451	8202 8267 8331 8395 8457	8209 8274 8338 8401 8463	8215 8280 8344 8407 8470	8222 8287 8351 8414 8476	8228 8293 8357 8420 8482	8235 8299 8363 8426 8488	8241 8306 8370 8432 8494	8248 8312 8376 8439 8500	8254 8319 8382 8445 8506	1 1 1 1	1 1 1 1	2 2 2 2 2	3 3 2 2	3 3 3 3	4 4 4 4	5 4 4 4	5 5 5 5 5	6 6 6 6
71 72 73 74 75	8513 8573 8633 8692 8751	8519 8579 8639 8698 8756	8525 8585 8645 8704 8762	8531 8591 8651 8710 8768	8537 8597 8657 8716 8774	8543 8603 8663 8722 8779	8549 8609 8669 8727 8785	8555 8615 8675 8733 8791	8561 8621 8681 8739 8797	8567 8627 8686 8745 8802	1 1 1 1	1 1 1 1	$\frac{2}{2}$ $\frac{2}{2}$	2 2 2 2 2	3 3 3 3	4 4 4 3	4 4 4 4	5 5 5 5 5	5 5 5 5 5
76 77 78 79 80	8808 8865 8921 8976 9031	8814 8871 8927 8982 9036	8820 8876 8932 8987 9042	8825 8882 8938 8993 9047	8831 8887 8943 8998 9053	8837 8893 8949 9004 9058	8842 8899 8954 9009 9063	8848 8904 8960 9015 9069	8854 8910 8965 9020 9074	8859 8915 8971 9025 9079	1 1 1 1	1 1 1 1 1	2 2 2 2 2	2 2 2 2 2 2	3 3 3 3	3 3 3 3	4 4 4 4	5 4 4 4 4	5 5 5 5 5
81 82 83 84 85	9085 9138 9191 9243 9294	9090 9143 9196 9248 9299	9096 9149 9201 9253 9304	9101 9154 9206 9258 9309	9106 9159 9212 9263 9315	9112 9165 9217 9269 9320	9117 9170 9222 9274 9325	9122 9175 9227 9279 9330	9128 9180 9232 9284 9335	9133 9186 9238 9289 9340	1 1 1 1	1 1 1 1 1	2 2 2 2 2	2 2 2 2 2	3 3 3 3	3 3 3 3	4 4 4 4	4 4 4 4	5 5 5 5
86 87 88 89 90	9345 9395 9445 9494 9542	9350 9400 9450 9499 9547	9355 9405 9455 9504 9552	9360 9410 9460 9509 9557	9365 9415 9465 9513 9562	9370 9420 9469 9518 9566	9375 9425 9474 9523 9571	9380 9430 9479 9528 9576	9385 9435 9484 9533 9581	9390 9440 9489 9538 9586	1 0 0 0 0	1 1 1 1 1	2 1 1 1 1	2 2 2 2 2 2	3 2 2 2 2	3 3 3 3	4 3 3 3 3	4 4 4 4	5 4 4 4
91 92 93 94 95	9590 9638 9685 9731 9777	9595 9643 9689 9736 9782	9694 9741	9605 9652 9699 9745 9791	9609 9657 9708 9750 9795	9614 9661 9708 9754 9800	9619 9666 9713 9759 9805	9624 9671 9717 9763 9809	9628 9675 9722 9768 9814	9633 9680 9727 9773 9818	0 0 0 0	1 1 1 1	1 1 1 1 1	2 2 2 2 2 2	2 2 2 2 2	3 3 3 3	3 3 3 3	4 4 4 4	4 4 4 4
96 97 98 99 100	9823 9868 9912 9956 0000	9827 9872 9917 9961 0004	9921 9965	9836 9881 9926 9969 0013	9886 9930 9974	9845 9890 9934 9978 0022	9850 9894 9939 9983 0026	9854 9899 9943 9987 0030	9859 9903 9948 9991 0035	9863 9908 9952 9996 0039	0	1 1 1 1	1 1 1 1	2 2 2 2	2 2 2 2	3 3 3	3 3 3	4 4 4 3	4 4 4
101 102 103 104 105	0086 0128 0170	0175	0095 0137 0179	0099 0141 0183	0103 0145 0187	0065 0107 0149 0191 0233	0069 0111 0154 0195 0237	0073 0116 0158 0199 0241	0077 0120 0162 0204 0245	0166 0208									
106 107 108 108 110	7 0294 3 0334 9 0374	0298 0338 0378	3 0302 3 0342 3 0382	0306 0346 0386	0310 0350 0390	0273 0314 0354 0394 0434	0318 0358 0398	0282 0322 0362 0402 0441	0286 0326 0366 0406 0445	0330 0370 0410									

		,	2		4	_		_				M	[ea:	n I	Diff	ere	nce	s.	
	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
·00 ·01 ·02 ·03 ·04 ·05	1000 1023 1047 1072 1096 1122	1002 1026 1050 1074 1099 1125	1005 1028 1052 1076 1102 1127	1007 1030 1054 1079 1104 1130	1009 1033 1057 1081 1107 1132	1012 1035 1059 1084 1109 1135	1014 1038 1062 1086 1112 1138	1016 1040 1064 1089 1114 1140	1019 1042 1067 1091 1117 1143	1021 1045 1069 1094 1119 1146	0 0 0 0 0	0 0 0 0 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 2 2	2 2 2 2 2 2	2 2 2 2 2 2 2	2 2 2 2 2 2 2
·06 ·07 ·08 ·09 ·10	1148 1175 1202 1230 1259	1151 1178 1205 1233 1262	1153 1180 1208 1236 1265	1156 1183 1211 1239 1268	1159 1186 1213 1242 1271	1161 1189 1216 1245 1274	1164 1191 1219 1247 1276	1167 1194 1222 1250 1279	1169 1197 1225 1253 1282	1172 1199 1227 1256 1285	0 0 0 0	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 3 3 3
·11 ·12 ·13 ·14 ·15	1288 1318 1349 1380 1413	1291 1321 1352 1384 1416	1294 1324 1355 1387 1419	1297 1327 1358 1390 1422	1300 1330 1361 1393 1426	1303 1334 1365 1396 1429	1306 1337 1368 1400 1432	1309 1340 1371 1403 1435	1312 1343 1374 1406 1439	1315 1346 1377 1409 1442	0 0 0 0	1 1 1 1	1 1 1 1	1 1 1 1	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	2 2 3 3 3	3 3 3 3
·16 ·17 ·18 ·19 ·20	1445 1479 1514 1549 1585	1449 1483 1517 1552 1589	$\begin{array}{c} 1452 \\ 1486 \\ 1521 \\ 1556 \\ 1592 \end{array}$	1455 1489 1524 1560 1596	1459 1493 1528 1563 1600	1462 1496 1531 1567 1603	1466 1500 1535 1570 1607	1469 1503 1538 1574 1611	1472 1507 1542 1578 1614	1476 1510 1545 1581 1618	0 0 0 0	1 1 1 1	1 1 1 1 1	1 1 1 1	2 2 2 2 2	2 2 2 2 2	2 2 2 3 3	3 3 3 3	3 3 3 3
·21 ·22 ·23 ·24 ·25	$\begin{array}{c} 1622 \\ 1660 \\ 1698 \\ 1738 \\ 1778 \end{array}$	1626 1663 1702 1742 1782	1629 1667 1706 1746 1786	1633 1671 1710 1750 17 91	1637 1675 1714 1754 1795	1641 1679 1718 1758 1799	1644 1683 1722 1762 1803	1648 1687 1726 1766 1807	1652 1690 1730 1770 1811	1656 1694 1734 1774 1816	0 0 0 0	1 1 1 1	1 1 1 1	2 2 2 2 2	2 2 2 2 2	2 2 2 2 2	3 3 3 3	3 3 3 3	3 4 4 4
·26 ·27 ·28 ·29 ·30	1820 1862 1905 1950 1995	1824 1866 1910 1954 2000	1828 1871 1914 1959 2004	1832 1875 1919 1963 2009	1837 1879 1923 1968 2014	1841 1884 1928 1972 2018	1845 1888 1932 1977 2023	1849 1892 1936 1982 2028	1854 1897 1941 1986 2032	1858 1901 1945 1991 2037	0 0 0 0	1 1 1 1 1	1 1 1 1	2 2 2 2 2	2 2 2 2 2	3 3 3 3 3	3 3 3 3	3 4 4 4	4 4 4 4
·31 ·32 ·33 ·34 ·35	2042 2089 2138 2188 2239	2046 2094 2143 2193 2244	2051 2099 2148 2198 2249	2056 2104 2153 2203 2254	2061 2109 2158 2208 2259	2065 2113 2163 2213 2265	$\begin{array}{c} 2070 \\ 2118 \\ 2168 \\ 2218 \\ 2270 \end{array}$	2075 2123 2173 2223 2275	2080 2128 2178 2228 2280	2084 2133 2183 2234 2286	0 0 0 1 1	1 1 1 1	1 1 2 2	2 2 2 2 2	2 2 2 3 3	3 3 3 3 3	3 3 4 4	4 4 4 4	4 4 5 5
36 37 ·38 ·39 ·40	229 1 2344 2399 2455 2512	2296 2350 2404 2460 2518	2301 2355 2410 2466 2523	2307 2360 2415 2472 2529	2312 2366 2421 2477 -2535	2317 2371 2427 2483 2541	2323 2377 2432 2489 2547	2328 2382 2438 2495 2553	2333 2388 2443 2500 2559	2339 2393 2449 2506 2564	1 1 1 1	1 1 1 1	2 2 2 2 2 2	2 2 2 2 2	3 3 3 3	3 3 3 4	4 4 4 4	4 4 5 5	5 5 5 5 5
41 42 43 44 45	2570 2630 2692 2754 2818	2576 2636 2698 2761 2825	2582 2642 2704 2767 2831	2588 2649 2710 2773 2838	2594 2655 2716 2780 2844	2600 2661 2723 2786 2851	2606 2667 2729 2793 2858	2612 2673 2735 2799 2864	2618 2679 2742 2805 2871	2624 2685 2748 2812 2877	1 1 1 1	1 1 1 1	2 2 2 2 2 2	2 2 3 3 3	3 3 3 3 3	4 4 4 4	4 4 4 5	5 5 5 5 5	5 6 6 6
·46 ·47 ·48 ·49 ·50	2884 2951 3020 3090 3162	2891 2958 3027 3097 3170	2897 2965 3034 3105 3177	2904 2972 3041 3112 3184	2911 2979 3048 3119 3192	2917 2985 3055 3126 3199	2924 2992 3062 3133 3206	2931 2999 3069 3141 3214	2938 3006 3076 3148 3221	2944 3013 3083 3155 3228	1 1 1 1	1 1 1 1	2 2 2 2 2	3 3 3 3 3	3 4 4 4	4 4 4 4	5 5 5 5 5 5	5 6 6 6	6 6 6 7

							_		_				N	Iea	n]	Diff	ere	nce	s.	
		0	1	2	3	4	5	6	7		9	1	2	3	4	5	6	7	8	9
	·50 ·51 ·52 ·53 ·54 ·55	3162 3236 3311 3388 3467 3548	3170 3243 3319 3396 3475 3556	3177 3251 3327 3404 3483 3565	3184 3258 3334 3412 3491 3573	3192 3266 3342 3420 3499 3581	3199 3273 3350 3428 3508 3589	3206 3281 3357 3436 3516 3597	3214 3289 3365 3443 3524 3606	3221 3296 3373 3451 3532 3614	3228 3304 3381 3459 3540 3622	1 1 1 1 1	1 2 2 2 2 2 2	2 2 2 2 2 2 2	3 3 3 3 3 3 3	4 4 4 4 4	4 5 5 5 5 5	5 5 5 6 6	6 6 6 6 7	7 7 7 7 7 7 7 7
	·56 ·57 ·58 ·59 ·60	3631 3715 3802 3890 3981	3639 3724 3811 3899 3990	3648 3733 3819 3908 3999	3656 3741 3828 3917 4009	3664 3750 3837 3926 4018	3673 3758 3846 3936 4027	3681 3767 3855 3945 4036	3690 3776 3864 3954 4046	3698 3784 3873 3963 4055	3707 3793 3882 3972 4064	1 1 1 1 1	2 2 2 2 2 2	3 3 3 3	3 4 4 4	4 4 5 5	5 5 5 6	6 6 6 6	7 7 7 7	8 8 8 8 8
	·61 ·62 ·63 ·64 ·65	4074 4169 4266 4365 4467	4083 4178 4276 4375 4477	4093 4188 4285 4385 4487	4102 4198 4295 4395 4498	4111 4207 4305 4406 4508	4121 4217 4315 4416 4519	4130 4227 4325 4426 4529	4140 4236 4335 4436 4539	4150 4246 4345 4446 4550	4159 4256 4355 4457 4560	1 1 1 1	2 2 2 2 2 2	3 3 3 3	4 4 4 4 4	5 5 5 5 5	6 6 6 6	7 7 7 7	8 8 8 8	9 9 9 9
	·66 ·67 ·68 ·69 ·70	4571 4677 4786 4898 5012	4581 4688 4797 4909 5023	4592 4699 4808 4920 5035	4603 4710 4819 4932 5047	4613 4721 4831 4943 5058	4624 4732 4842 4955 5070	4634 4742 4853 4966 5082	4645 4753 4864 4977 5093	4656 4764 4875 4989 5105	4637 4775 4887 5000 5117	1 1 1 1	2 2 2 2 2 2	3 3 3 4	4 4 4 5 5	5 6 6 6	6 7 7 7	7 8 8 8	9 9 9	10 10 10 10 10
	·71 ·72 ·73 ·74 ·75	5129 5248 5370 5495 5623	5140 5260 5383 5508 5636	5152 5272 5395 5521 5649	5164 5284 5408 5534 5662	5176 5297 5420 5546 5675	5188 5309 5433 5559 5639	5200 5321 5445 5572 5702	5212 5333 5458 5585 5715	5224 5346 5470 5598 5728	5236 5358 5483 5610 5741	1 1 1 1	2 2 3 3 3	4 4 4 4	5 5 5 5 5	6 6 6 7	7 8 8 8	9 9 9	10 10 10 10 10	11 11 12
	·76 ·77 ·78 ·79 ·80	5754 5888 6026 6166 6310	5768 5902 6039 6180 6324	5781 5916 6053 6194 6339	5794 5929 6067 6209 6353	5808 5943 6031 6223 6368	5821 5957 6035 6237 6383	5834 5970 6109 6252 6397	5848 5984 6124 6266 6412	5861 5998 6138 6281 6427	5875 6012 6152 6295 6442	1 1 1 1	3 3 3 3	4 4 4 4	5 6 6 6	7 7 7 7	8 8 9 9		11 11	
1	·81 ·82 ·83 ·84 ·85	6457 6607 6761 6918 7079	6471 6622 6776 6934 7096	6486 6637 6792 6950 7112	6501 6653 6808 6966 7129	6516 6668 6823 6982 7145	6531 6683 6839 6998 7161	6546 6699 6855 7015 7178	6561 6714 6871 7031 7194	6577 6730 6887 7047 7211	6592 6745 6902 7063 7228	2 2 2 2 2	33335	5 5 5 5 5	6 6 6 7		9 9 10 10	11 11	12 13	14 14 14 15 15
	·86 ·87 ·88 ·89 ·90	7244 7413 7586 7762 7943	7261 7430 7603 7780 7962	7278 7447 7621 7798 7980	7295 7464 7638 7816 7998	7311 7482 7656 7834 8017	7328 7499 7674 7852 8035	7345 7516 7691 7870 8054	7362 7534 7709 7889 8072	7379 7551 7727 7907 8091	7396 7568 7745 7925 8110	2 2 2 2 2	3 4 4 4	5 5 5 5 6	7 7 7 7	9	10 10 11 11 11	12 12 13	14	16 16 16
	·91 ·92 ·93 ·94 ·95	8128 8318 8511 8710 8913	8147 8337 8531 8730 8933	8166 8356 8551 8750 8954	8185 8375 8570 8770 8974	8204 8395 8590 8790 8995	8222 8414 8610 8810 9016	8241 8433 8630 8831 9036	8260 8453 8650 8851 9057	8279 8472 8670 8872 9078	8299 8492 8690 8892 9099	2 2 2 2 2	4 4 4 4	6 6 6 6	8	9 10 10 10 10	$\frac{12}{12}$	13 14 14 14 15	$\frac{16}{16}$	17 17 18 18 19
	·96 ·97 ·98 ·99	9120 9333 9550 9772	9141 9354 9572 9795	9162 9376 9594 9817	9183 9397 9616 9840	9204 9419 9638 9863	9226 9441 9661 9886	9247 9462 9683 9908	9268 9484 9705 9931	9290 9506 9727 9954	9311 9528 9750 9977	2 2 2 2	4 4 4 5	6 7 7 7	9	11	13 13 13 14	15 15 16 16	17 18	19 20 20 20 20

NAPIERIAN LOGARITHMS

of Numbers from 0.1 to 5.09; with Subsidiary Table.

er.							-					Sub	sidia	ıry '	ral	ole.		
Number.	0	1	2	3	4	5	6	7	8	9	No.	Nap.	Log.	No	.	Naj	p. L	og.
0·1 0·2 0·3 0·4 0·5	3.6974 2.3906 .7960 1.0837 3068	7927 4393 8288 1084 3267	8797 4859 8606 1325 3461	9598 5303 8913 1560 3651	0339 5729 9212 1790 3838	1029 6137 9502 2015 4022	1674 6529 9783 2235 4202	2280 6907 0057 2450 4379	2852 7270 0324 2660 4553	3393 7621 0584 2866 4724	6 7 8 9 10 20 30	2·0 2·1 2·3 2·9	918 459 794 972 026 957 012	40 50 60 70 80 90		3· 4· 4· 4·	688 912 094 248 382 499 605	20 13 35 20
0.6 0.7 0.8 0.9 1.0	4892 6433 7769 8946 0:0000	5057 6575 7893 9057 0100	5220 6715 8015 9166 0198	5380 6853 8137 9274 0296	5537 6989 8256 9381 0392	5692 7123 8375 9487 0488	5845 7256 8492 9592 0583	5995 7386 8607 9695 0677	6143 7515 8722 9798 0770	6289 7643 8835 9899 0862	1	Mea 2 3	n D	iffer 5 6	_	7	8	9
1·1 1·2 1·3 1·4 1·5	0953 1823 2624 3365 4055	1044 1906 2700 3436 4121	1133 1989 2776 3507 4187	1222 2070 2852 3577 4253	1310 2151 2927 3646 4318	1398 2231 3001 3716 4383	1484 2311 3075 3784 4447	1570 2390 3148 3853 4511	1655 2469 3221 3920 4574	1740 2546 3293 3988 4637	8 1 7 1 7 1		32 30	44 5 40 4 37 4 35 4 32 3	8 5 1	52	64 59 55	78 72 67 62 58
1.6 1.7 1.8 1.9 2.0	4700 5306 5878 6419 6931	4762 5365 5933 6471 6981	4824 5423 5988 6523 7031	4886 5481 6043 6575 7080	4947 5539 6098 6627 7129	5008 5596 6152 6678 7178	5068 5653 6206 6729 7227	5128 5710 6259 6780 7275	5188 5766 6313 6831 7324	5247 5822 6366 6881 7372	6 1 5 1 5 1	2 18 1 17 1 16 0 15 0 15	24 22 20	30 3 29 3 27 3 26 3 24 2	4 2 1	36		55 52 49 46 44
2·1 2·2 2·3 2·4 2·5	7419 7885 8329 8755 9163	7467 7930 8372 8796 9203	7514 7975 8416 8838 9243	7561 8020 8459 8879 9282	7608 8065 8502 8920 9322	7655 8109 8544 8961 9361	7701 8154 8587 9002 9400	7747 8198 8629 9042 9439	7793 8242 8671 9083 9478	7839 8286 8713 9123 9517	4 4	9 14 9 13 9 13 8 12 8 12	18 17 16	23 2 22 2 21 2 20 2 20 2	7 6 4	31 30 29	34 33	42 40 38 37 35
2·6 2·7 2·8 2·9 3·0	9555 9933 1·0296 0647 0986	9594 9969 0332 0682 1019	9632 0006 0367 0716 1053	$\begin{array}{c} 9670 \\ \overline{0}043 \\ 0403 \\ 0750 \\ 1086 \end{array}$	9708 $\overline{0}080$ 0438 0784 1119	$\begin{array}{c} 9746 \\ \hline 0116 \\ 0473 \\ 0818 \\ 1151 \end{array}$	$\begin{array}{c} 9783 \\ \overline{0152} \\ 0508 \\ 0852 \\ 1184 \end{array}$	9821 0188 0543 0886 1217	$\begin{array}{c} 9858 \\ \overline{0}225 \\ 0578 \\ 0919 \\ 1249 \end{array}$	9895 0260 0613 0953 1282	4 4 3	8 11 7 11 7 11 7 10 7 10	15 14 14	19 2 18 2 18 2 17 2 16 2	2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\frac{25}{24}$	30 29 28 27 26	34 33 32 31 30
3·1 3·2 3·3 3·4 3·5	1314 1632 1939 2238 2528	1346 1663 1969 2267 2556	1378 1694 2000 2296 2585	1410 1725 2030 2326 2613	1442 1756 2060 2355 2641	1474 1787 2090 2384 2669	1506 1817 2119 2413 2698	1537 1848 2149 2442 2726	1569 1878 2179 2470 2754	1600 1909 2208 2499 2782	3 3	6 10 6 9 6 9 6 9 6 8	12		8 8	21 21	25 25 24 23 22	29 28 27 26 25
3·6 3·7 3·8 3·9 4·0	2809 3083 3350 3610 3863	2837 3110 3376 3635 3888	2865 3137 3403 3661 3913	2892 3164 3429 3686 3938	2920 3191 3455 3712 3962	2947 3218 3481 3737 3987	2975 3244 3507 3762 4012	3002 3271 3533 3788 4036	3029 3297 3558 3813 4061	3056 3324 3584 3838 4085	3 3	5 8 5 8 5 8 5 8 5 7	11 10 10	14 1 13 1 13 1 13 1 12 1	6 5	18 18	22 21 21 20 20	25 24 23 23 22
4·1 4·2 4·3 4·4 4·5	4110 4351 4586 4816 5041	4134 4375 4609 4839 5063	4159 4398 4633 4861 5085	4183 4422 4656 4884 5107	4207 4446 4679 4907 5129	4231 4469 4702 4929 5151	4255 4493 4725 4951 5173	4279 4516 4748 4974 5195	4303 4540 4770 4996 5217	4327 4563 4793 5019 5239	2 2 2	5 7 5 7 5 7 4 7 4 7	9 9	$12 \ 1$ $12 \ 1$ $11 \ 1$ $11 \ 1$ $11 \ 1$	4 3	16		22 21 21 20 20
4.6 4.7 4.8 4.9 5.0	5261 5476 5686 5892 6094	5282 5497 5707 5913 6114	5304 5518 5728 5933 6134	5326 5539 5748 5953 6154	5347 5560 5769 5974 6174	5369 5581 5790 5994 6194	5390 5602 5810 6014 6214	5412 5623 5831 6034 6233	5433 5644 5851 6054 6253	5454 5665 5872 6074 6273	2	4 6 4 6 4 6 4 6 4 6	8 8 8	11 1 11 1 10 1 10 1 10 1	3 2 2 2	14	17 16 16	19 19 18

											ın Diff.	to	of A	Log corr	s. of a	Sine
Arc	0′	1′	2′	3′	4′	5′	6′	7′	8′	9′	Mean	0′	2′	4′	6′	8′
0° 0′	4 ·	4637	7648	9408	0 658	$\overline{1}627$	$\overline{2}419$	3088	366S	- 4180		0	0	0	0	0
10′	3.4637	5051	5429	5777	6099	6398	6678	6942	7190	7425		0	0	0	0	0
20′	- 7648 9408	7859 9551	80 61 9689	8255 9822	8439 9952	8617	8787 0200	8951 0319	$9109 \\ \overline{0435}$	9261 0548		0 1	1	0	0	0
30′ 40′	2:0658	0765	0870	0972	1072	0078 1169	1265	1358	1450	1539		0	0	0	0	0
50′	1627	1713	1797	1880	1961	2041	2119	2196	2271	2346		ŏ	ĭ	ĭ	ĭ	ĭ
1° 0′	2419	2490 3150	2561 3210	2630 3270	2699 3329	2766	2832 3445	2898 3502	2962 3558	3025 3613	67 58	0 1	1	1 1	1 1	1
10′ 20′	3088 3668	3722	3775	3828	3880	3388 3931	3982	4032	4082	4131	51	ī	i-	1	i	i
30′	4179	4227	4275	4322	4368	4414	4459	4504	4549	4593	46	2	1	2	. 5	2
40′ 50′	4637 5050	4680 5090	4723 5129	4765 5167	4807 5206	4848 5243	4890 5281	4930 5318	4971 5355	5011 5392	42 38	1 3	$\frac{2}{2}$	$\frac{2}{2}$	$\frac{2}{2}$	3
2° 0′	5428	5464	5500	5535	5571	5605	5640	5674	5708	5742	35	3	3	2	3	3
10′ 20′	5776 6097	$\frac{5809}{6128}$	5842 6159	5875 6189	5907 6220	5939 6250	5972 6279	6309	6035 6339	6066 6368	32 30	3 4	3 4	3	3	4
30	6397	6426	6454	6483	6511	6539	6567	6595	6622	6650	2 8	4	5	4	4	5
40′ 50′	6677 6940	6704 6965	6731 6991	6758 7016	6784 7041	6810 7066	6837 7090	6863 7115	6889 7140	6914 7164	26 25	5 5	5 5	5 5	5 6	5
3° 0′	7188	7212	7236	7260	7283	7307	7330	7354	7377	7400	23	6	6	7	7	ϵ
10′ 20′	7423 7645	7445 7667	7468 7688	7491 7710	7513 7731	7535 7752	7557 77 73	7580 7794	7602 7815	7623 7836	22 21	6 7	7	7 8	8	7
30	7857	7877	7898	7918	7939	7959	7979	7999	8019	8039	20	8	8	8	9	5
40′ 50′	8059 8251	8078 8270	8098 8289	8117 8307	8137 8326	8156 8345	8175 8363	8194 8381	8213 8400	8232 8418	19 18	8 10	$\frac{9}{10}$	9 10	10 10	10 10
4° 0′	8436	8454	8472	8490	8508	8525	8543	8560	8578	8595	18	10	11	10	11	11
10′ 20′	8613 8783	8630 8799	8647 8816	8665 8833	8682 8849	8699 8865	8716 8882	8733 8898	8749 8914	8766 8930	17 16	$\frac{11}{12}$	12, 13	12 13	12 13	18 18
30'	8946	8962	8978	8994	9010	9026	9042	9057	9073	9089	16	14	14	14	14	14
40′ 50′	9104 9256	$9119 \\ 9271$	9135 9286	9150 9301	9166 9315	9181 9330	9196 9345	9211 9359	9226 9374	9241 9388	15 15	14 16	15 16	$\frac{14}{16}$	15 16	18 16
5° 0′	9403	9417	9432	9446	9460	9475	9489	9503	9517	9531	14	17	17	17	17	17
10′	9545	9559	9573	9587	9601	9614	9628 9763	9642 9776	9655 9789	9669 9803	14 13	18 19	18 20	18 20	18 19	19 20
20′ 30′	9682 9816	9696 9829	9709 9842	9723 9855	9736 9868	9750 9881	9894	9907	9919	9932	13	20	20	20	21	21
40′	9945	9958	9970	9983	9996	0008	0021	0033	0046	0058	13	21	22	21	22	22
50′	1.0070	0083	0095	0107	0120	0132	0144	0156	0168	0180	12	23	23	23	23	24
6° 0′ 10′	0192 0311	0204 0323	0216 0334	0228 0346	0240 0357	0252 0369	0264 0380	0276 0392	0287 0403	0299 0415	12 12	24 25	24 26	$\frac{25}{26}$	25 27	25 27
20'	0311	0323	0449	0460	0472	0483	0494	0505	0516	0527	11	27	27	27	27	28
30'	0539	0550	0561	0572	0583	0594	0605	0616	0626	0637	11	28	28 29	28 30	$\frac{28}{31}$	30
40′ 50′	0648 0755	0659 0765	0670 0776	0680 0786	0691 0797	0702 0807	0712 0818	0723 0828	0734 0838	0744 0849	11. 10	30 31	31	31	31	38
7° 0′	0859	0869	0879	0890	0900	0910	0920	0930	0940	0951	10	32	33	33	34	34
10' 20'	0961 1060	0971 1070	0981 1080	0991 1089	1001 1099	1011	1020 1118	1030 1128	1040 1138	1050 1147	10	34 36	34 36	34 36	35 37	36 37
30'	1157	1167	1176	1186	1195	1205	1214	1224	1233	1242	10	37	38	38	38	39
40'	1252	1261	1271	1280	1289	1299	1308	1317	1326	1336 1427	9	39 40	39 41	$\frac{40}{42}$	40 42	41
50′	1345	1354	1363	1372	1381	1390	1399	1409	1418	1427	1 9	40	41	44	44	**

lan.	ree.	0′	6′	12'	18′	24'	30′	36′	42'	48'	54'	Mea	ın I	oiffe	ren	ces.
Radian.	Degree.	0°·0	0°·1	0°.2	0°.3	0°·4	0°•5	0°·6	0°.7	0°∙8	0°·9	1′	2′	3′	4'	5′
*0000 *0175 *0349 *0524 *0698 *0873	0 1 2 3 4 5	∞ 2·2419 ···5428 ···7188 ···8436 ···9403	3·2419 2832 5640 7330 8543 9489	5429 3210 5842 7468 8647 9573	7190 3558 6035 7602 8749 9655	8439 3880 6220 7731 8849 9736	9408 4179 6397 7857 8946 9816	0200 4459 6567 7979 9042 9894	0870 4723 6731 8098 9135 9970	1450 4971 6889 8213 9226 0046	1961 5206 7041 8326 9315 0120	16 13	32 26	48 39	64 52	80 65
*1047 *1222 *1396 *1571 *1745	6 7 8 9 10	1·0192 1·0859 1·1436 1·1943 1·2397	0264 0920 1489 1991 2439	0334 0981 1542 2038 2482	0403 1040 1594 2085 2524	0472 1099 1646 2131 2565	0539 1157 1697 2176 2606	0605 1214 1747 2221 2647	0670 1271 1797 2266 2687	0734 1326 1847 2310 2727	0797 1381 1895 2353 2767	11 10 8 8 7	22 19 17 15 14	33 29 25 23 20	44 38 34 30 27	55 48 42 38 34
•1920 •2094 •2269 •2443 •2618	11 12 13 14 15	71.2806 11.3179 11.3521 11.3837 11.4130	2845 3214 3554 3867 4158	2883 3250 3586 3897 4186	2921 3284 3618 3927 4214	2959 3319 3650 3957 4242	2997 3353 3682 3986 4269	3034 3387 3713 4015 4296	3070 3421 3745 4044 4323	3107 3455 3775 4073 4350	3143 3488 3806 4102 4377	6 5 5 5	12 11 11 10 9	19 17 16 15 14	25 23 21 20 18	31 28 26 24 23
•2793 •2967 •3142 •3316 •3491	16 17 18 19 20	11.4403 11.4659 11.4900 11.5126 11.5341	4430 4684 4923 5148 5361	4456 4709 4946 5170 5382	4482 4733 4969 5192 5402	4508 4757 4992 5213 5423	4533 4781 5015 5235 5443	4559 4805 5037 5256 5463	4584 4829 5060 5278 5484	4609 4853 5082 5299 5504	4634 4876 5104 5320 5523	4 4 4 4 3	9 8 8 7	13 12 11 11 10	17 16 15 14 14	21 20 19 18 17
•3665 •3840 •4014 •4189 •4363	21 22 23 24 25	11.5543 11.5736 11.5919 11.6093 11.6259	5563 5754 5937 6110 6276	5583 5773 5954 6127 6292	5602 5792 5972 6144 6308	5621 5810 5990 6161 6324	5641 5828 6007 6177 6340	5660 5847 6024 6194 6356	5679 5865 6042 6210 6371	5698 5883 6059 6227 6387	5717 5901 6076 6243 6403	3 3 3 3	6 6 6 5	10 9 9 8 8	13 12 12 11 11	16 15 15 14 13
•4538 •4712 •4887 •5061 •5236	26 27 28 29 30	"*6418 "*6570 "*6716 "*6856 "*6990	6434 6585 6730 6869 7003	6449 6600 6744 6883 7016	6465 6615 6759 6896 7029	6480 6629 6773 6910 7042	6495 6644 6787 6923 7055	6510 6659 6801 6937 7068	6526 6673 6814 6950 7080	6541 6687 6828 6963 7093	6556 6702 6842 6977 7106	3 2 2 2 2 2	5 5 4 4	8 7 7 6	10 10 9 9	13 12 12 11 11
*5411 *5585 *5760 *5934 *6109	31 32 33 34 35	"*7118 "*7242 "*7361 "*7476 "*7586	7131 7254 7373 7487 7597	7144 7266 7384 7495 7607	7156 7278 7396 7509 7618	7168 7290 7407 7520 7629	7181 7302 7419 7531 7640	7193 7314 7430 7542 7650	7205 7326 7442 7553 7661	7218 7338 7453 7564 7671	7230 7349 7464 7575 7682	2 2 2 2 2 2	4 4 4 4	6 6 6 5	8 8 7 7	10 10 10 9
•6283 •6458 •6632 •6807 •6981	36 37 38 39 40	".*7692 ".*7795 ".*7893 ".*7989 ".*8081	7703 7805 7903 7998 8090	7713 7815 7913 8007 8099	7723 7825 7922 8017 8108	7734 7835 7932 8026 8117	7744 7844 7941 8035 8125	7754 7854 7951 8044 8134	7764 7864 7960 8053 8143	7774 7874 7970 8063 8152	7785 7884 7979 8072 8161	2 2 2 2 1	3 3 3 3	5 5 5 4	7 6 6 6	9 8 8 8 7
•7156 •7330 •7505 •7679 •7854	41 42 43 44 45	11*8169 11*8255 11*8338 11*8418 11*8495	8178 8264 8346 8426 8502	8187 8272 8354 8433 8510	8195 8280 8362 8441 8517	8204 8289 8370 8449 8525	8213 8297 8378 8457 8532	8221 8305 8386 8464 8540	8230 8313 8394 8472 8547	8238 8322 8402 8480 8555	8247 8330 8410 8487 8562	1 1 1 1	3 3 3 2	4 4 4 4	6 5 5 5	7 7 7 6 6
	F	ladian=	0017	0035	0052	0070	0087	0105	0122	0140	0157			_		

ian.	ree.	0′	6′	12'	18'	24'	30′	36′	426	48'	54'	Me	an I	Diffe	renc	es.
Radian.	Degree.	0°·0	0°·1	03.5	0°·3	0°·4	0°.5	06	0°·7	0°·8	0°·9	1′	2′	3′	4′	5′
•785 •803 •820 •838 •855 •873	45 46 47 48 49 50	1·8495 ····8569 ····8641 ····8711 ····8778 ····8843	8502 8577 8648 8718 8784 8849	8510 8584 8655 8724 8791 8855	8517 8591 8662 8731 8797 8862	8525 8598 8669 8738 8804 8868	8532 8606 8676 8745 8810 8874	8540 8613 8683 8751 8817 8880	8547 8620 8690 8758 8823 8887	8555 8627 8697 8765 8830 8893	8562 8634 8704 8771 8836 8899	1 1 1 1 1	2 2 2 2 2 2 2	4 4 3 3 3 3	5 5 4 4 4	6 6 6 5 5
·890 ·908 ·925 ·942 ·960	51 52 53 54 55	11.8905 11.8965 11.9023 11.9080 11.9134	8911 8971 9029 9085 9139	8917 8977 9035 9091 9144	8923 8983 9041 9096 9149	8929 8989 9046 9101 9155	8935 8995 9052 9107 9160	8941 9000 9057 9112 9165	8947 9006 9063 9118 9170	8953 9012 9069 9123 9175	8959 9018 9074 9128 9181	1 1 1 1	2 2 2 2 2	3 3 3 3	4 4 4 3	5 5 5 4
.977 .995 1.012 1.030 1.047	56 57 58 59 60	"*9186 "*9236 "*9284 "*9331 "*9375	9191 9241 9289 9335 9380	9196 9246 9294 9340 9384	9201 9251 9298 9344 9388	9206 9255 9303 9349 9393	9211 9260 9308 9353 9397	9216 9265 9312 9358 9401	9221 9270 9317 9362 94 0 6	9226 9275 9322 9367 9410	9231 9279 9326 9371 9414	1 1 1 1	$\frac{2}{2}$ $\frac{1}{1}$	3 2 2 2 2 2	3 3 3 3	4 4 4 4
1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	"*9418 "*9459 "*9499 "*9537 "*9573	9422 9463 9503 9540 9576	9427 9467 9507 9544 9580	9431 9471 9510 9548 9583	9435 9475 9514 9551 9587	9439 9479 9518 9555 9590	9443 9483 9522 9558 9594	9447 9487 9525 9562 9597	9451 9491 9529 9566 9601	9455 9495 9533 9569 9604	1 1 1 1	1 1 1 1	2 2 2 2 2	3 3 2 2	3 3 3 3
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	11*9607 11*9640 11*9672 11*9702 11*9730	9611 9643 9675 9704 9733	9614 9647 9678 9707 9735	9617 9650 9681 9710 9738	9621 9653 9684 9713 9741	9624 9656 9687 9716 9743	9627 9659 9690 9719 9746	9631 9662 9693 9722 9749	9634 9666 9696 9724 9751	9637 9669 9699 9727 9754	1 0 0 0	1 1 1 1	$\frac{2}{2}$ $\frac{1}{1}$ $\frac{1}{1}$	2 2 2 2 2	3 3 2 2 2
1·239 1·257 1·274 1·292 1·309	71 72 73 74 75	"*9757 "*9782 "*9806 "*9828 "*9849	9759 9785 9808 9831 9851	9762 9787 9811 9833 9853	9764 9789 9813 9835 9855	9767 9792 9815 9837 9857	9770 9794 9817 9839 9859	9772 9797 9820 9841 9861	9775 9799 9822 9843 9863	9777 9801 9824 9845 9865	9780 9804 9826 9847 9867	0 0 0 0	1 1 1 1	1 1 1 1	2 2 2 1 1	2 2 2 2 2
1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	"*9869 "*9887 "*9904 "*9919 "*9934	9871 9889 9906 9921 9935	9873 9891 9907 9922 9936	9875 9892 9909 9924 9937	9876 9894 9910 9925 9939	9878 9896 9912 9927 9940	9880 9897 9913 9928 9941	9882 9899 9915 9929 9943	9884 9901 9916 9931 9944	9885 9902 9918 9932 9945	0 0 0 0	1 1 0 0	1 1 1 1	1 1 1 1	2 1 1 1 1
1:414 1:431 1:449 1:466 1:484	81 82 83 84 85	11*9946 11*9958 11*9968 11*9976 11*9983	9947 9959 9968 9977 9984	9949 9960 9969 9978 9985	9950 9961 9970 9978 9985	9951 9962 9971 9979 9986	9952 9963 9972 9980 9987	9953 9964 9973 9981 9987	9954 9965 9974 9981 9988	9955 9966 9975 9982 9988	9956 9967 9975 9983 9989	0 0 0 0	0 0 0 0	1 0 0 0	1 1 0 0	1 1 1 1 0
1·501 1·518 1·536 1·553 1·571	86 87 88 89 90	11.9989 11.9994 11.9997 11.9999 0.0000	9990 9994 9998 9999	9990 9995 9998 0000	9991 9995 9998 0000	9991 9996 9998 0000	9992 9996 9999 0000	9992 9996 9999 0000	9993 9996 9999 0000	9993 9997 9999 0000	9994 9997 9999 0000	0 0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

i.	ej.					l						Me	an I	Diffe	rene	es.
Radian.	Degree.	0,.0	6′ 0°∙1	0°·2	18′ 0°·3	0°·4	30′ 0°·5	0°·6	42′ 0°·7	48′ 0°·8	54′ 0°•9	1'	2′	3′	4'	5′
.0000	0	0.0000	0000	0000	0000	0000	0000	0000	0000	0000	9999	0	0	0	0	0
*0175 *0349 *0524	1 2 3	1.9999 11.9997 11.9994	9999 9997 9994	9999 9997 9993	9999 9996 9993	9999 9996 9992	9999 9996 9992	9998 9996 9991	9998 9995 9991	9998 9995 9990	9998 9994 9990	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
•0698 •0873	5	11.9989 11.9983	9989 9983	9988 9982	9988 9981	9987 9981	9987 9980	9986 9979	9985 9978	9985 9978	9984 9977	0	0	0	0	0
·1047	6 7	11.9976 11.9968	9975 9967	9975 9966	9974 9965	9973 9964	9972 9963	9971 9962	9970 9961	9969 9960	9968 9959	0	0	0	1	1
·1396 ·1571 ·1745	8 9 10	11.9958 11.9946 11.9934	9956 9945 9932	9955 9944 9931	9954 9943 9929	9953 9941 9928	9952 9940 9927	9951 9939 9925	9950 9937 9924	9949 9936 9922	9947 9935 9921	0 0 0	0 0 0	1 1 1	1 1 1	1 1 1
·1920 ·2094	11 12	11*9919 11*9804	9918 9902	9916 9901	9915 9899	9913 9897	9912 9896	9910 9894	9909 9892	9907 9891	9906 9889	0	1	1	1	1
·2269 ·2443 ·2618	13 14 15	11.9887 11.9869 11.9849	9885 9867 9847	9384 9365 9845	9882 9863 9843	9880 9861 9841	9878 9859 9839	9876 9857 9837	9875 9855 9835	9873 9853 9833	9871 9851 9831	0 0 0	1 1 1	1 1 1	1 1 1	2 2 2
·2793 ·2967	16 17	11.9829 11.9806	9826 9804	9824 9801	9822 9799	982 0 9797	9817 9794	9815 9792	9813 9789	9811 9787	9808 9785	0	1	1	$\frac{2}{2}$	$\frac{2}{2}$
·3142 ·3316 ·3491	18 19 20	" 9782 " 9757 " 9730	9780 9754 9727	9777 9751 9724	9775 9749 9722	9772 9746 9719	$9770 \\ 9743 \\ 9716$	9767 9741 9713	9764 9738 9710	9762 9735 9707	9759 9733 9704	0 0 0	1 1 1	1 1 1	$\frac{2}{2}$	2 2 2
·3665 ·3840	21 22	,,·9702 ,,·9672	9699 9639	9696 9666	9693 9662	9690 9659	9687 9656	9684 9653	9681 9650	9678 9647	9675 9643	0 1	1	1 2	2 2	2 3
'4014 '4189 '4363	23 24 25	11.9640 11.9607 11.9573	9637 9604 9569	9634 9601 9566	9631 9597 9562	9627 9594 9558	9624 9590 9555	9621 9587 9551	9617 9583 9548	9614 9580 9544	9611 9576 9540	1 1 1	1 1 1	2 2	$\frac{2}{2}$	3 3 3
·4538 ·4712	26 27	11*9537 11*9499	9533 9495	9529 9491	9525 9487	9522 9483	9518 9479	9514 9475	9510 9471	9507 9467	9503 9463	1	1	2 2	3	3
*4887 *5061 *5236	28 29 30	"9459 "9418 "9375	9455 9414 9371	9451 9410 9367	9447 9406 9362	9443 9401 9358	9439 9397 9353	9435 9393 9349	9431 9388 9344	9427 9384 9340	9422 9380 9335	1 1 1	1 1 1	2 2 2	3 3	3 4 4
•5411 •5585	31 32	n·9331	9326 9279	9322 9275	9317 9270	9312 9265	9308 9260	9303 9255	9298 9251	9294 9246	9289 9241	1 1	2 2	2 2	3	4
•5760 •5934 •6109	33 34 35	"9236 "9186 "9134	9231 9181 9128	9226 9175 9123	9221 9170 9118	9216 9165 9112	9211 9160 9107	9206 9155 9101	9201 9149 9096	9196 9144 9091	9191 9139 9085	1 1 1	2 2 2	3 3	3 3 4	4 4 5
·6283	36	ıı . 908 0	9074	9069	9063	9057	9052	9046	9041	9035	9029	1	2	3	4	5
•6458 •6632 •6807	37 38 39	11.8965 11.8965	9018 8959 8899	9012 8953 8893	9006 8947 8887	9000 8941 8880	8995 8935 8874	8989 8929 8868	8983 8923 8862	8977 8917 8855	8971 8911 8849	1 1 1	$\frac{2}{2}$	3 3	4 4	5 5 5
·6981	40	".*8843 ".*8778	8836 8771	8830 8765	8823 8758	8817 8751	8810 8745	8804 8738	8797 8731	8791 8724	8784 8718	1	2	3	4	5 6
•7330 •7505 •7679	42 43 44	"8711 "8641 "8569	8704 8634 8562	8697 8627 8555	8690 8620 8547	8683 8613 8540	8676 8606 8532	8669 8598 8525	8662 8591 8517	8655 8584 8510	8648 8577 8502	1 1 1	2 2 2	3 4 4	5 5 5	6 6
7854	45	n*8495	8487	8480	8472	8464	8457	8449	8441	8433	8426	i	3	4	5	6
,	F	Radian =	0017	0035	0052	0070	0087	0105	0122	0140	0157				-	

an.	ee.	0'	6′	12'	18′	24'	30′	36′	42'	48'	54'	Me	ean i	Diffe	renc	es.
Radian.	Degree.	0∘.0	0°·1	0°·2	0°.3	0°·4	0°·5	0°·6	0°·7	08	0°∙9	1′	2′	3′	4′	5′
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	1·8495 ····8418 ····8338 ····8255 ····8169 ····8081	8487 8410 8330 8247 8161 8072	8480 8402 8322 8238 8152 8063	8472 8394 8313 8230 8143 8053	8464 8386 8305 8221 8134 8044	8457 8378 8297 8213 8125 8035	8449 8370 8289 8204 8117 8026	8441 8362 8280 8195 8108 8017	8433 8354 8272 8187 8099 8007	8426 8346 8264 8178 8090 7998	1 1 1 1 1 2	3 3 3 3 3	4 4 4 4 4 5	5 6 6 6 6	6 7 7 7 7 8
*890 *908 *925 *942 *960	51 52 53 54 55	".7989 ".7893 ".7795 ".7692 ".7586	7979 7884 7785 7682 7575	7970 7874 7774 7671 7564	7960 7864 7764 7661 7553	7951 7854 7754 7650 7542	7941 7844 7744 7640 7531	7932 7835 7734 7629 7520	7922 7825 7723 7618 7509	7913 7815 7713 7607 7498	7903 7805 7703 7597 7487	2 2 2 2 2	3 3 4 4	5 5 5 6	6 7 7 7 7	8 8 9 9
*977 *995 1.012 1.030 1.047	56 57 58 59 60	"'7476 "'7361 "'7242 "'7118 "'6990	7464 7349 7230 7106 6977	7453 7338 7218 7093 6963	7442 7326 7205 7080 6950	7430 7314 7193 7068 6937	7419 7302 7181 7055 6923	7407 7290 7168 7042 6910	7396 7278 7156 7029 6896	7384 7266 7144 7016 6883	7373 7254 7131 7003 6869	2 2 2 2 2	4 4 4 4	6 6 6 7	8 8 9 9	10 10 10 11 11
1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	"6856 "6716 "6570 "6418	6842 6702 6556 6403 6243	6828 6687 6541 6387 6227	6814 6673 6526 6371 6210	6801 6659 6510 6356 6194	6787 6644 6495 6340 6177	6773 6629 6480 6324 6161	6759 6615 6465 6308 6144	6744 6600 6449 6292 6127	6730 6585 6434 6276 6110	2 2 3 3 3	5 5 5 6	7 .7 .8 8	9 10 10 11 11	12 12 13 13 14
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	11.6093 11.5919 11.5736 11.5543 11.5341	6076 5901 5717 5523 5320	6059 5883 5698 5504 5299	6042 5865 5679 5484 5278	6024 5847 5660 5463 5256	6007 5828 5641 5443 5235	5990 5810 5621 5423 5213	5972 5792 5602 5402 5192	5954 5773 5583 5382 5170	5937 5754 5563 5361 5148	3 3 3 4	6 6 7 7	9 9 10 10 11	12 12 13 14 14	15 15 16 17 18
1·239 1·257 1·274 1·292 1·309	71 72 73 74 75	".*5126 ".*4900 ".*4659 ".*4403	5104 4876 4634 4377 4102	5082 4853 4609 4350 4073	5060 4829 4584 4323 4044	5037 4805 4559 4296 4015	5015 4781 4533 4269 3986	4992 4757 4508 4242 3957	4969 4733 4482 4214 3927	4946 4709 4456 4186 3897	4923 4684 4430 4158 3867	4 4 4 5 5	8 8 9 9	11 12 13 14 15	15 16 17 18 20	19 20 21 23 24
1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	"*3837 "*3521 "*3179 "*2806 "*2397	3806 3488 3143 2767 2353	3775 3455 3107 2727 2310	3745 3421 3070 2687 2266	3713 3387 3034 2647 2221	3682 3353 2997 2606 2176	3650 3319 2959 2565 2131	3618 3284 2921 2524 2085	3586 3250 2883 2482 2038	3554 3214 2845 2439 1991	5 6 6 7 8	11 11 12 14 15	16 17 19 20 23	21 23 25 27 30	26 28 31 34 38
1.414 1.431 1.449 1.466 1.484	81 82 83 84 85	11.1943 11.1436 11.0859 11.0192 2.9403	1895 1381 0797 0120 93 1 5	1847 1326 0734 0046 9226	$\begin{array}{c} 1797 \\ 1271 \\ 0670 \\ \overline{9}970 \\ 9135 \end{array}$	1747 1214 0605 9894 9042	1697 1157 0539 9816 8946	1646 1099 0472 9736 8849	1594 1040 0403 9655 8749	1542 0981 0334 9573 8647	1489 0920 0264 9489 8543	8 10 11 13 16	17 19 22 26 32	25 29 33 39 48	34 38 44 52 64	42 48 55 65 80
1.501 1.518 1.536 1.553 1.571	86 87 88 89 90	"·8436 "·7188 "·5428 "·2419 —∞	8326 7041 5206 1961	8213 6889 4971 1450	8098 6731 4723 0870	7979 6567 4459 0200	7857 6397 4179 9408	7731 6220 3880 8439	7602 6035 3558 7190	7468 5842 3210 5429	7330 5640 2832 2419					

Radian = 0017 | 0035 | 0052 | 0070 | 0087 | 0105 | 0122 | 0140 | 0157

	lan.	ree.	0′	6′	12'	18'	24'	30′	36′	42′	48'	54'	Me	an l	Diffe	eren	ces.
	Radian.	Degree.	0°·0	0°·1	0°.2	0°·3	0°·4	0°•5	0°•6	0°•7	0°•8	0°∙9	1′	2′	3′	4′	5′
.0	0000 0175 0349 0524 0698 0873	0 1 2 3 4 5	∞ 2·2419 ···5431 ···7194 ···8446 ···9420	3·2419 2833 5643 7337 8554 9506	5429 3211 5845 7475 8659 9591	7190 3559 6038 7609 8762 9674	8439 3881 6223 7739 8862 9756	9409 4181 6401 7865 8960 9836	0200 4461 6571 7988 9056 9915	0870 4725 6736 8107 9150 9992	1450 4973 6894 8223 9241 0068	1962 5208 7046 8336 9331 0143	16 13	32 26	48 40	64 53	81 66
·1	1047 1222 1396 1571 1745	6 7 8 9 10	1.0216 0891 1478 1997 2463	0289 0954 1533 2046 2507	0360 1015 1587 2094 2551	0430 1076 1640 2142 2594	0499 1135 1693 2189 2637	0567 1194 1745 2236 2680	0633 1252 1797 2282 2722	0699 1310 1848 2328 2764	0764 1367 1898 2374 2805	0828 1423 1948 2419 2846	11 10 9 8 7	22 20 17 16 14	34 29 26 23 21	45 39 35 31 28	56 49 43 39 35
•2	1920 2094 2269 2443 2618	11 12 13 14 15	11.2887 11.3275 11.3634 11.3968 11.4281	2927 3312 3568 4000 4311	2967 3349 3702 4032 4341	3006 3385 3736 4064 4371	3046 3422 3770 4095 4400	3085 3458 3804 4127 4430	3123 3493 3837 4158 4459	3162 3529 3870 4189 4488	3200 3564 3903 4220 4517	3237 3599 3935 4250 4546	6 6 5 5	13 12 11 10 10	19 18 17 16 15	26 24 22 21 20	32 30 28 26 25
• •	2793 2967 3142 3316 3491	16 17 18 19 20	"4575 "4853 "5118 "5370 "5611	4603 4880 5143 5394 5634	4632 4907 5169 5419 5658	4660 4934 5195 5443 5681	4688 4961 5220 5467 5704	4716 4987 5245 5491 5727	4744 5014 5270 5516 5750	4771 5040 5295 5539 5773	4799 5066 5320 5563 5796	4826 5092 5345 5587 5819	5 4 4 4 4	9 9 8 8 8	14 13 13 12 12	19 18 17 16 15	23 22 21 20 19
•	3665 3840 4014 4189 4363	21 22 23 24 25	11.5842 11.6064 11.6279 11.6486 11.6687	5864 6086 6300 6506 6706	5887 6108 6321 6527 6726	5909 6129 6341 6547 6746	5932 6151 6362 6567 6765	5954 6172 6383 6587 6785	5976 6194 6404 6607 6804	5998 6215 6424 6627 6824	6020 6236 6445 6647 6843	6042 6257 6465 6667 6863	4 4 3 3 3	7 7 7 7	11 10 10 10	15 14 14 13 13	19 18 17 17 16
•	4538 4712 4887 5061 5236	25 27 23 29 30	". 6882 ". 7072 ". 7257 ". 7438 ". 7614	6901 7090 7275 7455 7632	6920 7109 7293 7473 7649	6939 7128 7311 7491 7667	6958 7146 7330 7509 7684	6977 7165 7348 7526 7701	6996 7183 7366 7544 7719	7015 7202 7384 7562 7736	7034 7220 7402 7579 7753	7053 7238 7420 7597 7771	3 3 3 3	6 6 6 6	9 9 9 9	13 12 12 12 12	16 15 15 15 15
•	5411 5585 5760 5934 6109	31 32 33 34 35	7788 7958 8125 8290 8452	7805 7975 8142 8306 8468	7822 7992 8158 8323 8484	7839 8008 8175 8339 8501	7856 8025 8191 8355 8517	7873 8042 8208 8371 8533	7890 8059 8224 8388 8549	7907 8075 8241 8404 8565	7924 8092 8257 8420 8581	7941 8109 8274 8436 8597	3 3 3 3 3	6 5 5 5	9 8 8 8	11 11 11 11 11	14 14 14 14 13
•	6283 6458 6632 6807 6981	36 37 38 39 40	"8613 "8771 "8928 "9084 "9238	8629 8787 8944 9099 9254	8644 8803 8959 9115 9269	8660 8818 8975 9130 9284	8676 8834 8990 9146 9300	8692 8850 9006 9161 9315	8708 8865 9022 9176 9330	8724 8881 9037 9192 9346	8740 8897 9053 9207 9361	8755 8912 9068 9223 9376	3 3 3 3	5 5 5 5	8 8 8 8	11 10 10 10	13 13
	7156 7330 7505 7679 7854	41 42 43 44 45	"*9392 "*9544 "*9697 "*9848 0*0000	9407 9560 9712 9864 0015	9422 9575 9727 9879 0030	9438 9590 9742 9894 0045	9453 9605 9757 9909 0061	9468 9621 9773 9924 0076	9483 9636 9788 9939 0091	9499 9651 9803 9955 0106	9514 9666 9818 9970 0121	9529 9681 9833 9985 0136	3 3 3 3	5 5 5 5	8 8 8 8	10 10 10 10	13 13 13

Radian = 0017 0035 0052 0070 0087 0105 0122 0140 0157

ian,	ree.	o'	6′	12'	18′	24'	30′	36′	42′	48′	54'	М	ean	Diffe	erenc	es.
Radian,	Degree.	0°·0	0°·1	0°•2	0°·3	0°·4	0 °∙5	0°•6	0°∙7	0°.8	0°∙9	<u>1</u> ′	2′	3′	4'	5
7 85	45	•0000	0015	0030	0045	0061	9076	0091	0106	0121	0136	3	5	8	10	18
.803	46	0152	0167	0182	0197	0212	0228	0243	0258	0273	0288	3	. 2	8	10	1:
•820 •838	47 48	*0303 *0456	0319	0334 0486	0349 0501	0364 0517	0379 0532	0395 0547	0410 0562	0425 0578	0440 0593	3	5 5	8	10 10	1:
855	49	*0608	0624	0639	0654	0670	0685	0700	0716	0731	0746	3	5	8	10	1
*873	50	0762	0777	0793	0808	0824	0839	0854	0870	0885	0901	3	5	8	10	13
*890	51	·0916	0932	0347	0963	0978	0994	1010	1025	1041	1056	3	5	8	10	1
•908 •925	52 53	1072 1229	1088 1245	1103 1260	$\frac{1119}{1276}$	$1135 \\ 1292$	1150 1308	$1166 \\ 1324$	1182 1340	1197 1356	$1213 \\ 1371$	3	5 5	8	10 11	1
942	54	·1387	1403	1419	1435	1451	1467	1483	1499	1516	1532	3	5	8	11	1.
•960	55	1 548	1564	1580	1596	1612	1629	1645	1661	1677	1694	3	5	8	11	1
·977 ·995	56 57	·1710 ·1875	1726 1891	1743 1908	1759 1925	1776 1941	1792 1958	1809 1975	1825 1992	1842 2008	1858 2025	3	5	8	11 11	1.
.012	58	*2042	2059	2076	2093	2110	2127	2144	2161	2178	2195	3	6	9	11	1
030	59	*2212	2229	2247	2264	2281	2299	2316	2333	2351	2368	3	6	9	12	1
.047	60	*2386	2403	2421	2438	2456	2474	2491	2509	2527	2545	3	6	9	12	1
.065 .082	61 62	*2562 *2743	2580 2762	2598 2780	2616 2798	2634 2817	2652 2835	2670 2854	2689 2872	$2707 \\ 2891$	2725 2910	3	6	9	12 12	1
100	63	*2928	2947	2966	2985	3004	3023	3042	3061	3080	3099	3	6	9	13	1
117 134	64	*3118	3137	3157 3353	3176 3373	3196	3215 3413	3235 3433	3254 3453	3274 3473	3294	3	6	10	13	1
104	65	*3313	3333			3393					3494	3	'	10	13	1
·152 ·169	66	3514	3535 3743	3555 3764	3576 3785	3596 3806	3617 3828	3638 3849	3659 3871	3679 3892	3700 3914	3	7	10 11	14 14	1
187	67 68	*3721 *3936	3958	3980	4002	4024	4046	4068	4091	4113	4136	4	7	11	15	1
.204	69	'4158	4181	4204	4227	4250	4273	4296	4319	4342	4366	4	8	12	15	1
. 222	70	*4389	4413	4437	4461	4484	4509	4533	4557	4581	4606	4	8	12	16	2
239	71	•4630	4655	4680 4934	4705	4730	4755	4780	4805	4831 5093	4857 5120	4	8	13	17	2
257	72 73	*4882 *5147	4908 5174	5201	4960 5229	4986 5256	5013 5284	5039 5312	5066 5340	5368	5397	4 5	9	13 14	18 19	2
292	74	*5425	5454	5483	5512	5541	5570	5600	5629	5659	5689	5	10	15	20	2
.309	75	. 5719	5750	5780	5811	5842	5873	5905	5936	5968	6000	5	10	16	21	2
326	76 77	*6366	6065 6401	6097 6436	6130 6471	6163 6507	6196 6542	6230 6578	6264 6615	6298 6651	6332 6688	6	11 12	17 18	22 24	2
361	78	6725	6763	6800	6838	6877	6915	6954	6994	7033	7073	6	13	19	26	3
379	79	•7113	7154	7195	7236	7278	7320	7363	7406	7449	7493	7	14	21	28	3
*396	80	*7537	7581	7626	7672	7718	7764	7811	7858	7906	7954	8	16	23	31	3
·414 ·431	81 82	*8003 *8522	8052 8577	8102 8633	8152 8690	8203 8748	8255 8806	8307 8865	8360 8924	8413 8985	8467 9046	9 10	$\frac{17}{20}$	$\frac{26}{29}$	35 · 39	4:
•449	83	9109	9172	9236	9301	9367	9433	9501	9570	9640	9711	11	12	34	45	5
*466 *484	84 85	9784 1 0580	9857 0669	9932 0759	0008 0850	0085 0944	0164 1040	$0244 \\ 1138$	$0326 \\ 1238$	$0409 \\ 1341$	$\begin{array}{c} \overline{0494} \\ 1446 \end{array}$	13 16	$\frac{26}{32}$	40 48	53 64	8
												10	02	10	UX.	0
501 518	86 87	1·1554 1·2806	1664 2954	1777 3106	1893 3264	2012 3429	2135 3599	2261 3777	2391 3962	2525 4155	2663 4357					
536	88	1.4569	4792	5027	5275	5539	5819	6119	6441	6789	7167					
•553	89 90	1.7581	8038	8550	9130	9800	0591	1561	2810	4571	7581					

Radian=0017 0035 0052 0070 0087 0105 0122 0140 0157

										1						
Radian.	Degree.	0′	6′	12′	18′	24'	30′	36′	42′	48'	54'	Me	an I	Diffe	renc	es.
Rac	Des	0°.0	0°·1	0°.2	0°·3	0°•4	0°·5	0°·6	0°.7	0°∙8	0°∙9	1′	2′	3′	4'	5′
	-															
*0000 *0175	0	.0000 .0175	0017 0192	0035 0209	0052 0227	0070 0244	0087 0262	0105 0279	0122 0297	0140 0314	0157 0332	3	6	9	12	15
·0349	2 3	.0349	0366	0384 0558	0401	0419	0436	0454	0471	0488	0506	3	6	9	12 12	15 15
•0524 •0698	4	·0523 ·0698	0541 0715	0732	0576 0750	0593 0767	0610 0785	0628 0802	$0645 \\ 0819$	0663 0837	0680 0854	3	6 6	9	$\frac{12}{12}$	$\frac{15}{14}$
· 08 7 3	5	'0872	0889	0906	0924	0941	0958	0976	0993	1011	1028	3	6	9	12	14
•1047 •1222	6	·1045 ·1219	1063 1236	1080 1253	1097 1271	1115 1288	1132 1305	1149 1323	1167 1340	1184 1357	$1201 \\ 1374$	3	6	9	$\frac{12}{12}$	14 14
·1396 ·1571	8	·1392 ·1564	$\frac{1409}{1582}$	1426 1599	1444 1616	1461 1633	1478 1650	1495 1668	1513 1685	1530 1702	1547 1719	3	6	9	12 12	14 14
·1745	10	1736	1754	1771	1788	1805	1822	1840	1857	1874	1891	3	6	9	11	14
·1920	11	1908	1925	1942	1959	1977	1994	2011	2028	2045	2062	3	6	9	11	14
·2094 •2269	12 13	·2079 ·2250	2096 2267	2113 2284	2130 2300	$2147 \\ 2317$	2164 2334	2181 2351	2198 2368	2215 2385	2233 2402	3	6 6	9 8	11 11	14 14
•2443 •2618	14 15	·2419 ·2588	2436 2605	2453 2622	2470 2639	$2487 \\ 2656$	2504 2672	2521 2689	2538 2706	2554 2723	2571 2740	3	6 6	8	11 11	14 14
•2793	16	2756	2773	2790	2807	2823	2840	2857	2874	2890	2907	3	6	8	11	14
2967 3142	17 18	·2924 ·3090	2940 3107	2957 3123	2974 3140	2990 3156	3007 3173	3024 3190	3040 3206	3057 3223	3074 3239	3	6	8	11 11	14 14
*3316	19 20	*3256	3272	3289	3305	3322	3338	3355	3371	3387	3404	3	5	8	11	14
·3491	20	*3420	3437	3453	3469	3486	3502	3518	3535	3551	3567	3	õ	8	11	14
*3665 *3840	21 22	*3584 *3746	3600 3762	3616 3778	3633 3795	3649 3811	3665 3827	3681 3843	3697 3859	3714 3875	3730 3891	3	5 5	8	11 11	14 14
*4014 *4189	23 24	·3907 ·4067	3923 4083	3939 4099	3955 4115	3971 4131	3987 4147	4003 4163	4019 4179	4035 4195	4051 4210	3	5	8	11 11	14 13
· 43 63	25	4226	4242	4258	4274	4289	4305	4321	4337	4352	4368	3	5	8	îî	13
•4538	26	4384	4399	4415	4431	4446	4462	4478	4493	4509	4524	3	5	8	10	13
·4712 ·4887	27 28	·4540 ·4695	4555 4710	4571 4726	4586 4741	4602 4756	4617 4772	4633 4787	4648 4802	4664 4818	4679 4833	3	5 5	8	10 10	13 13
•5061 •5236	29 30	·4848 ·5000	4863 5015	4879 50 3 0	4894 5045	4909 5060	4924 5075	4939 5090	4955 5105	4970 5120	4985 5135	3	5 5	8	10 10	13 13
•5411	31	•5150	5165	5180	5195	5210	5225	5240	5255	5270	5284	2	5	7	10	12
•5585 •5760	32 33	·5299 ·5446	5314 5461	5329 5476	5344 5490	5358 5505	5373 5519	5388 5534	5402 5548	5417 5563	5432 5577	2 2	5 5	7 7	10 10	12 12
•5934	34	*5592	5606	5621	5635	5650	5664	5678	5693	5707	5721	2	5	7	10	12
*6109	35	·5736	5750	5764	5779	5793	5807	5821	5835	5850	5864	2	. 5	7	9	12
·6283 ·6458	36 37	5878 6018	5892 6032	5906 6046	5920 6060	5934 6074	5948 6088	5962 6101	5976 6115	5990 6129	6004 6143	2 2	5 5	7 7	9	12 12
·6632 ·6807	38 39	·6157 ·6293	6170 6307	6184 6320	6198 6334	6211 6347	6225 6361	6239 6374	6252 6388	6266 6401	6280 6414	2 2	5	7 7 7	9	11 11
6981	40	6428	6441	6455	6468	6481	6494	6508	6521	6534	6547	2	4	7	9	11
·7156	41	6561	6574	6587	6600	6613	6626	6639	6652	6665	6678	2.	4	7	9	11
·7330 •7505	42 43	·6691 ·6820	6704 6833	6717 6845	6730 6858	6743 6871	6756 6884	6769 6896	6782 6909	6794 6921	6807 6934	$\frac{2}{2}$	4	6 6	9	11 11
·7679 ·7854	44 45	·6947	6959 7083	6972 7096	6984 7108	$6997 \\ 7120$	7009 7133	$7022 \\ 7145$	7034 7157	7046 7169	7059 7181	2	4	6 6	8	10 10
i																
	·Ra	ıdian =	0017	0035	0052	0070	0087	0105	0122	0140	0157			•		

ii.	ee.	0′	6′	12'	18'	24'	30′	36′	42'	48′	54'	Mea	n I	oiffe	ren	ices.
Radian.	Degree.	0.0	0°·1	0°·2	0°.3	0°·4	0°:5	0°.6	0°·7	0°.8	0°.9	1'	2′	3′	4′	5′
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	·7071 ·7193 ·7314 ·7431 ·7547 ·7660	7083 7206 7325 7443 7559 7672	7096 7218 7337 7455 7570 7683	7108 7230 7349 7466 7581 7694	7120 7242 7361 7478 7593 7705	7133 7254 7373 7490 7604 7716	7145 7266 7385 7501 7615 7727	7157 7278 7396 7513 7627 7738	7169 7290 7408 7524 7638 7749	7181 7302 7420 7536 7649 7760	2 2 2 2 2 2 2	4 4 4 4 4	6 6 6 6 6	8	10 10 10 10 9 9
*890 *908 *925 *942 *960	51 52 53 54 55	•7771 •7880 •7986 •8090 •8192	7782 7891 7997 8100 8202	7793 7902 8007 8111 8211	7804 7912 8018 8121 8221	7815 7923 8028 8131 8231	7826 7934 8039 8141 8241	7837 7944 8049 8151 8251	7848 7955 8059 8161 8261	7859 7965 8070 8171 8271	7869 7976 8080 8181 8281	2 2 2 2 2 2	4 4 3 3 3	5 5 5 5 5	7 7 7 7	9 9 9 8 8
*977 *995 1.012 1.030 1.047	56 57 58 59 60	·8290 ·8387 ·8480 ·8572 ·8660	8300 8396 8490 8581 8669	8310 8406 8499 8590 8678	8320 8415 8508 8599 8686	8329 8425 8517 8607 8695	8339 8434 8526 8616 8704	8348 8443 8536 8625 8712	8358 8453 8545 8634 8721	8368 8462 8554 8643 8729	8377 8471 8563 8652 8738	2 2 2 1 1	3 3 3 3	5 5 4 4	6 6 6 6	8 8 7 7
1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	*8746 *8829 *8910 *8988 *9063	8755 8838 8918 8996 9070	8763 8846 8926 9003 9078	8771 8854 8934 9011 9085	8780 8862 8942 9018 9092	8788 8870 8949 9026 9100	8796 8876 8957 9033 9107	8805 8886 8965 9041 9114	8813 8894 8973 9048 9121	8821 8902 8980 9056 9128	1 1 1 1	3 3 3 2	4 4 4 4	6 5 5 5 5	7 7 6 6 6
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	9135 9205 9272 9336 9397	9143 9212 9278 9342 9403	9150 9219 9285 9348 9409	9157 9225 9291 9354 9415	9164 9232 9298 9361 9421	9171 9239 9304 9367 9426	9178 9245 9311 9373 9432	9184 9252 9317 9379 9438	9191 9259 9323 9385 9444	9198 9265 9330 9391 9449	1 1 1 1	$\frac{2}{2}$ $\frac{2}{2}$	3 3 3 3	5 4 4 4 4	6 5 5 5
1·239 1·257 1·274 1·292 1·309	71 72 73 74 75	9455 9511 9563 9613 9659	9461 9516 9568 9617 9664	9466 9521 9573 9622 9668	9472 9527 9578 9627 9673	9478 9532 9583 9632 9677	9483 9537 9588 9636 9681	9489 9542 9593 9641 9686	9494 9548 9598 9646 9690	9500 9553 9603 9650 9694	9505 9558 9608 9655 9699	1 1 1 1	$\frac{2}{2}$ $\frac{2}{2}$ $\frac{1}{2}$	3 2 2 2	4 3 3 3 3	5 4 4 4 4
1:326 1:344 1:361 1:379 1:396	76 77 78 79 80	9703 9744 9781 9816 9848	9707 9748 9785 9820 9851	9711 9751 9789 9823 9854	9715 9755 9792 9826 9857	9720 9759 9796 9829 9860	9724 9763 9799 9833 9863	9728 9767 9803 9836 9866	9732 9770 9806 9839 9869	9736 9774 9810 9842 9871	9740 9778 9813 9845 9874	1 1 1 1 0	1 1 1 1	$\frac{2}{2}$ $\frac{2}{2}$ $\frac{1}{2}$	3 2 2 2 2	3 3 3 2
1·414 1·431 1·449 1·466 1·484	81 82 83 84 85	*9877 *9903 *9925 *9945 *9962	9880 9905 9928 9947 9963	9882 9907 9930 9949 9965	9885 9910 9932 9951 9966	9888 9912 9934 9952 9968	9890 9914 9936 9954 9969	9893 9917 9938 9956 9971	9895 9919 9940 9957 9972	9898 9921 9942 9959 9973	9900 9923 9943 9960 9974	0 0 0 0	1 1 1 1 0	1 1 1 1 1	2 2 1 1 1	2 2 2 2 1
1.501 1.518 1.536 1.553 1.571	86 87 88 89 90	*9976 *9986 *9994 *9998 1*000	9977 9987 9995 9999	9978 9988 9995 9999	9979 9989 9996 9999	9980 9990 9996 9999	9981 9990 9997 1.000	9982 9991 9997 1.000	9983 9992 9997 1:000	9984 9993 9998 1.000	9985 9993 9998 1.000	0 0 0	0 0 0 0	1 0 0 0	1 1 0 0	1 1 0 0
				-	-	_					-	-		_	_	

Radian=0017 0035 0052 0070 0087 0105 0122 0140 0157

an.	.ee.	0′	6'	12'	18'	24'	30′	36′	42'	48'	54'	Mea	ın I	Diff	erei	ices.
Radian.	Degree.	0°·0	0°·1	0°·2	0°.3	0°·4	0°·5	0°·6	0°·7	0°.8	0°·9	1'	2′	3′	4'	5′
*0000 *0175 *0349 *0524 *0698 *0873	0 1 2 3 4 5	1.000 .9998 .9994 .9986 .9976 .9962	1·000 9998 9993 9985 9974 9960	1:000 9998 9993 9984 9973 9959	1·000 9997 9992 9983 9372 9057	1·000 9997 9991 9982 9971 9956	1·000 9997 9990 9981 9969 9954	·9999 9996 9990 9980 9968 9952	9999 9996 9989 9979 9966 9951	9999 9995 9983 9978 9965 9949	9999 9995 9987 9977 9963 9947	0 0 0 0 0	0 0 0 0 0	0 0 0 1 1	0 0 1 1 1 1	0 0 1 1 1 2
*1047 *1222 *1396 *1571 *1745	6 7 8 9 10	*9945 *9925 *9903 *9877 *9848	9943 9923 9930 9874 9845	9942 9921 9898 9871 9842	9947 9919 9895 9869 9839	9938 9917 9893 9866 9836	9936 9914 9890 9863 9833	9934 9912 9888 9860 9829	9932 9910 9885 9857 9826	9930 9907 9882 9854 9823	9928 9905 9880 9851 9820	0 0 0 0 1	1 1 1 1	1 1 1 1 2	1 2 2 2 2	2 2 2 2 3
*1920 *2094 *2269 *2443 *2618	11 12 13 14 15	*9816 *9781 *9744 *9703 *9059	9313 9778 9740 9099 9655	9810 9774 9736 9394 9650	9806 9770 9732 9695 9646	9803 9767 9728 9686 9641	9799 9763 9724 9681 9636	9796 9759 9729 9677 9632	9792 9755 9715 9673 9627	9783 9751 9711 9668 9622	9785 9748 9707 9664 9617	1 1 1 1	$1 \\ 1 \\ 1 \\ 1 \\ 2$	2 2 2 2 2	2 3 3 3	3 3 4 4
·2793 ·2937 ·3142 ·3316 ·3491	16 17 18 19 20	*9613 *9563 *9511 *9455 *9397	9608 9558 9505 9449 9391	9603 9553 9500 9444 9385	9598 9548 9494 9438 9379	9593 9542 9489 9432 9373	9588 9537 9483 9426 9367	9583 9532 9478 9421 9361	9578 9527 9472 9415 9354	9573 9521 9466 9409 9348	9568 9516 9461 9403 9342	1 1 1 1	2 2 2 2 2	2 3 3 3	3 4 4 4	4 4 5 5 5
*3665 *3840 *4014 *4189 *4363	21 22 23 24 25	·9336 ·9272 ·9205 ·9135 ·9063	9330 9265 9198 9128 9056	9323 9259 9191 9121 9048	9317 9252 9184 9114 9041	9311 9245 9178 9107 9033	9304 9239 9171 9100 9026	9298 9232 9164 9092 9018	9291 9225 9157 9085 9011	9285 9219 9150 9078 9003	9278 9212 9143 9070 8996	1 1 1 1	2 2 2 2 3	3 3 4 4	4 4 5 5 5	5 6 6 6
•4538 •4712 •4887 •5061 •5236	26 27 28 29 30	*8988 *8910 *8829 *8746 *8660	8980 8902 8821 8738 8652	8973 8894 8813 8729 8643	8965 8886 8805 8721 8634	8957 8878 8796 8712 8625	8349 8870 8788 8704 8616	8942 8862 8780 8695 8607	8934 8854 8771 8686 8509	8926 8846 8763 8678 8590	8918 8838 8755 8669 8581	1 1 1 1	3 3 3 3	4 4 4 4	5 5 6 6	6 7 7 7
•5411 •5585 •5760 •5934 •6109	31 32 33 34 35	*8572 *8480 *8387 *8290 *8192	8563 8471 8377 8281 8181	8554 8462 8368 8271 8171	8545 8453 8358 8261 8161	8536 8443 8348 8251 8151	8526 8434 8539 8241 8141	8517 8425 8329 8231 8131	8508 8415 8323 8221 8121	8499 8406 8310 8211 8111	8490 8396 8300 8202 8100	2 2 2 2 2	3 3 3 3 3	5 5 5 5 5	6 6 7 7	8 8 8 8
•6283 •6458 •6632 •6807 •6981	36 37 38 39 40	·8090 ·7986 ·7880 ·7771 ·7660	8080 7976 7869 7760 7649	8070 7965 7859 7749 7638	8059 7955 7848 7738 7627	8049 7944 7837 7727 7615	8039 7934 7826 7716 7604	8028 7923 7815 7705 7593	8018 7912 7804 7694 7581	8007 7902 7793 7683 7570	7997 7891 7782 7672 7559	2 2 2 2 2	3 4 4 4 4	5 5 6 6	7 7 7 7 8	9 9 9 9
•7156 •7330 •7505 •7679 •7854	41 42 43 44 45	*7547 *7431 *7314 *7193 *7071	7536 7420 7302 7181 7059	75?4 7408 7290 7169 7046	7513 7396 7278 7157 7034	7501 7385 7266 7145 7022	7490 7373 7254 7133 7009	7478 7361 7242 7120 6997	7466 7349 7230 7108 6984	7455 7337 7218 7096 6972	7443 7325 7206 7083 6959	2 2 2 2 2	4 4 4 4	6 6 6 6		10 10 10
	Ra	idian=	0017	. 0035	0052	0070	0087	0105	0122	0140	0157	-			_	

ian.	ree.	0,	6′	12'	18′	24'	30'	36′	42'	48'	54'	Me	an 1	Diffe	eren	ces.
Radian.	Degree.	0°•0	0°·1	0°·2	0,.3	0°•4	0°.5	0°·6	0°-7	0°.8	0.∙9	1′	2′	3′	4′	5′
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	7071 ·6947 ·6820 ·6691 ·6561 ·6428	7059 6934 6807 6678 6547 6414	7046 6921 6794 6665 6534 6401	7034 6909 6782 6652 6521 6388	7022 6896 6769 6639 6508 6374	7009 6884 6756 6626 6494 6361	6997 6871 6743 6613 6481 6347	6984 6858 6730 6600 6468 6334	6972 6845 6717 6587 6455 6320	6959 6833 6704 6574 6441 6307	2 2 2 2 2 2 2	4 4 4 4 4	6 6 6 7 7	8 8 9 9 9	10 11 11 11 11 11
*890 *908 *925 *942 *960	51 52 53 54 55	•6293 •6157 •6018 •5878 •5736	6280 6143 6004 5864 5721	6266 6129 5990 5850 5707	6252 6115 5976 5835 5693	6239 6101 5962 5821 5678	6225 6088 5948 5807 5664	6211 6074 5934 5793 5650	6198 6060 5920 5779 5635	6184 6046 5906 5764 5621	6170 6032 5892 5750 5606	2 2 2 2 2	5 5 5 5	7 7 7 7	9 9 9 9 10	11 12 12 12 12
.977 .995 1.012 1.030 1.047	56 57 58 59 60	•5592 •5446 •5299 •5150 •5000	5577 5432 5284 5135 4985	5563 5417 5270 5120 4970	5548 5402 5255 5105 4955	5534 5388 5240 5090 4939	5519 5373 5225 5075 4924	5505 5358 5210 5060 4909	5490 5344 5195 5045 4894	5476 5329 5180 5030 4879	5461 5314 5165 5015 4863	2 2 2 3 3	5 5 5 5	7 7 8 8	10 10 10 10 10	12 12 12 13 13
1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	·4848 ·4695 ·4540 ·4384 ·4226	4833 4679 4524 4368 4210	4818 4664 4509 4352 4195	4802 4648 4493 4337 4179	4787 4633 4478 4321 4163	4772 4617 4462 4305 4147	4756 4602 4446 4289 4131	4741 4586 4431 4274 4115	4726 4571 4415 4258 4099	4710 4555 4399 4242 4083	3 3 3 3	5 5 5 5	8 8 8 8	10 10 10 11 11	13 13 13 13 13
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	*4067 *3907 *3746 *3584 *3420	4051 3891 3730 3567 3404	4035 3875 3714 3551 3387	4019 3859 3697 3535 3371	4003 3843 3681 3518 3355	3987 3827 3665 3502 3338	3971 3811 3649 3486 3322	3955 3795 3633 3469 3305	3939 3778 3616 3453 3289	3923 3762 3600 3437 3272	3 3 3 3	5 5 5 5 5	8 8 8 8 8	11 11 11 11 11	14 14 14 14 14
1.239 1.257 1.274 1.292 1.309	71 72 73 74 75	*3256 *3090 *2924 *2756 *2588	3239 3074 2907 2740 2571	3223 3057 2890 2723 2554	3206 3040 2874 2706 2538	3190 3024 2857 2689 2521	3173 3007 2840 2672 2504	3156 2990 2823 2656 2487	3140 2974 2807 2639 2470	3123 2957 2790 2622 2453	3107 2940 2773 2605 2436	3 3 3 3	6 6 6 6	8 8 8 8	11 11 11 11 11	14 14 14 14 14
1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	*2419 *2250 *2079 *1908 *1736	2402 2233 2062 1891 1719	2385 2215 2045 1874 1702	2368 2198 2028 1857 1685	2351 2181 2011 1840 1668	2334 2164 1994 1822 1650	2317 2147 1977 1805 1633	2300 2130 1959 1788 1616	2284 2113 1942 1771 1599	2267 2096 1925 1754 1582	3 3 3 3	6 6 6 6	8 9 9 9	11 11 11 11 12	14 14 14 14 14
1:414 1:431 1:449 1:466 1:484	81 82 83 84 85	*1564 *1392 *1219 *1045 *0872	1547 1374 1201 1028 0854	1530 1357 1184 1011 0837	1513 1340 1167 0993 0819	1495 1323 1149 0976 0802	1478 1305 1132 0958 0785	1461 1288 1115 0941 0767	1444 1271 1097 0924 0750	1426 1253 1080 0906 0732	1409 1236 1063 0889 0715	3 3 3 3	6 6 6 6	9 9 9 9	12 12 12 12 12	14 14 14 14 14
1 501 1 518 1 536 1 553 1 571	86 87 88 89 90	*0698 *0523 *0349 *0175 *0000	0680 0506 0332 0157	0663 0488 0314 0140	0645 0471 0297 0122	0628 0454 0279 0105	0610 0436 0262 0087	0593 0419 0244 0070	0576 0401 0227 0052	0558 0384 0209 0035	0541 0366 0192 0017	3 3 3	6 6 6	9 9 9	12 12 12 12	15 15 15 15

Radian = 0017 | 0035 | 0052 | 0070 | 0087 | 0105 | 0122 | 0140 | 0157 |

	1-								,							
ian.	Degree.	o'	6'	12	18'	24'	30′	36′	42'	48'	54'	М	ean	Diffe	erene	es.
Radian.	Deg	00	0°·1	0°·2	0°·3	0°•4	0°·5	0°·6	0°-7	0°·8	0°·9	1′	2′	3′	4'	5′
*0000 *0175 *0349 *0524 *0698 *0873	0 1 2 3 4 5	·0000 ·0175 ·0349 ·0524 ·0699 ·0875	0017 0192 0367 0542 0717 0892	0035 0209 0384 0559 0734 0910	0052 0227 0402 0577 0752 0928	0070 0244 0419 0594 0769 0945	0087 0262 0437 0612 0787 0963	0105 0279 0454 0629 0805 0981	0122 0297 0472 0647 0822 0998	0140 0314 0489 0664 0840 1016	0157 0332 0507 0682 0857 1033	3 3 3 3 3	6 6 6 6 6	9 9 9 9 9	12 12 12 12 12 12 12	15 15 15 15 15 15
*1047 *1222 *1396 *1571 *1745	6 7 8 9 10	*1051 *1228 *1405 *1584 *1763	1069 1246 1423 1602 1781	1086 1263 1441 1620 1799	1104 1281 1459 1638 1817	1122 1299 1477 1655 1835	1139 1317 1495 1673 1853	1157 1334 1512 1691 1871	1175 1352 1530 1709 1890	1192 1370 1548 1727 1908	1210 1388 1566 1745 1926	3 3 3 3	6 6 6 6	9 9 9 9	12 12 12 12 12	15 15 15 15 15
·1920 ·2094 ·2269 ·2443 ·2618	11 12 13 14 15	*1944 *2126 *2309 *2493 *2679	1962 2144 2327 2512 2698	1980 2162 2345 2530 2717	1998 2180 2364 2549 2736	2016 2199 2382 2568 2754	2035 2217 2401 2586 2773	2053 2235 2419 2605 2792	2071 2254 2438 2623 2811	2089 2272 2456 2642 2830	2107 2290 2475 2661 2849	3 3 3 3	6 6 6 6	9 9 9 9	12 12 12 12 13	15 15 15 16 16
·2793 ·2967 ·3142 ·3316 ·3491	16 17 18 19 20	*2867 *3057 *3249 *3443 *3640	2886 3076 3269 3463 3659	2905 3096 3288 3482 3679	2924 3115 3307 3502 3699	2943 3134 3327 3522 3719	2962 3153 3346 3541 3739	2981 3172 3365 3561 3759	3000 3191 3385 3581 3779	3019 3211 3404 3600 3799	3038 3230 3424 3620 3819	3 3 3 3	6 6 7 7	9 10 10 10	13 13 13 13 13	16 16 16 16 17
*3665 *3840 *4014 *4189 *4363	21 22 23 24 25	*3839 *4040 *4245 *4452 *4663	3859 4061 4265 4473 4684	3879 4081 4286 4494 4706	3899 4101 4307 4515 4727	3919 4122 4327 4536 4748	3939 4142 4348 4557 4770	3959 4163 4369 4578 4791	3979 4183 4390 4599 4813	4000 4204 4411 4621 4834	4020 4224 4431 4642 4856	3 3 4 4	7 7 7 7	10 10 10 11 11	13 14 14 14 14	17 17 17 18 18
•4538 •4712 •4887 •5061 •5236	26 27 28 29 30	*4877 *5095 *5317 *5543 *5774	4899 5117 5340 5566 5797	4921 5139 5362 5589 5820	4942 5161 5384 5612 5844	4964 5184 5407 5635 5867	4986 5206 5430 5658 5890	5008 5228 5452 5681 5914	5029 5250 5475 5704 5938	5051 5272 5498 5727 5961	5073 5295 5520 5750 5985	4 4 4 4	7 7 8 8 8	11 11 11 12 12	15 15 15 15 16	18 18 19 19 20
*5411 *5585 *5760 *5934 *6109	31 32 33 34 35	·6009 ·6249 ·6494 ·6745 ·7002	6032 6273 6519 6771 7028	6056 6297 6544 6796 7054	6080 6322 6569 6822 7080	6104 6346 6594 6847 7107	6128 6371 6619 6873 7133	6152 6395 6644 6899 7159	6176 6420 6669 6924 7186	6200 6445 6694 6950 7212	6224 6469 6720 6976 7239	4 4 4 4	8 8 9 9	12 12 13 13 13	16 16 17 17 18	20 20 21 21 22
·6283 ·6458 ·6632 ·6807 ·6981	36 37 38 39 40	7265 7536 7813 8098 8391	7292 7563 7841 8127 8421	7319 7590 7869 8156 8451	7346 7618 7898 8185 8481	7373 7646 7926 8214 8511	7400 7673 7954 8243 8541	7427 7701 7983 8273 8571	7454 7729 8012 8302 8601	7481 7757 8040 8332 8632	7508 7785 8069 8361 8662	5 5 5 5 5	9 9 10 10	14 14 14 15 15	18 18 19 20 20	23 23 24 24 25
·7156 ·7330 ·7505 ·7679 •7854	41 42 43 44 45	*8693 *9004 *9325 *9657 1*0000	8724 9036 9358 9691 0035	8754 9067 9391 9725 0070	8785 9099 9424 9759 0105	8816 9131 9457 9793 0141	8847 9163 9490 9827 0176	8878 9195 9523 9861 0212	8910 9228 9556 9896 0247	8941 9260 9590 9930 0283	8972 9293 9623 9965 0319	5 6 6 6	10 11 11 11 11 12	16 16 17 17 18	21 21 22 23 24	26 27 28 29 30
	I	Radian=	0017	0035	0052	0070	0087	0105	0122	0140	0157					

	Radian.	ree.	0′	6′	12'	18'	24'	30′	36′	42'	48'	54'	M	ean	Diffe	erene	ces.
	Rad	Degree.	0°∙0	0°·1	0°·2	03	0°·4	0°.5	0°∙6	0°∙7	08	0°·9	1′	2′	3′	4′	5′
	*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	1.0000 1.0355 1.0724 1.1106 1.1504 1.1918	0035 0392 0761 1145 1544 1960	0070 0428 0799 1184 1585 2002	0105 0464 0837 1224 1626 2045	0141 0501 0875 1263 1667 2088	0176 0538 0913 1303 1708 2131	0212 0575 0951 1343 1750 2174	0247 0612 0990 1383 1792 2218	0283 0649 1028 1423 1833 2261	0319 0686 1067 1463 1875 2305	6 6 7 7	12 12 13 13 14 14	18 18 19 20 21 22	24 25 25, 27 28 29	30 31 32 33 34 36
	*890 *908 *925 *942 *960	51 52 53 54 55	1.2349 1.2799 1.3270 1.3764 1.4281	2393 2846 3319 3814 4335	2437 2892 3367 3865 4388	2482 2938 3416 3916 4442	2527 2985 3465 3968 4496	2572 3032 3514 4019 4550	2617 3079 3564 4071 4605	2662 3127 3613 4124 4659	2708 3175 3663 4176 4715	2753 3222 3713 4229 4770	8 8 8 9	15 16 16 17 13	23 24 25 26 27	30 31 33 34 36	38 39 41 43 45
	*977 *995 1*012 1*030 1*047	56 57 58 59 60	1.4826 1.5399 1.6003 1.6643 1.7321	4882 5458 6066 6709 7391	4938 5517 6128 6775 7461	4994 5577 6191 6842 7532	5051 5637 6255 6909 7603	5108 5697 6319 6977 7675	5166 5757 6383 7045 7747	5224 5818 6447 7113 7820	5282 5880 6512 7182 7893	5340 5941 6577 7251 7966	10 10 11 11 11 12	19 20 21 23 24	29 30 32 34 36	38 40 43 45 48	48 50 53 56 60
	1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	1*8040 1*8807 1*9626 2:0503 2:1445	8115 8887 9711 0594 1543	8190 8967 9797 0686 1642	8265 9047 9883 0778 1742	8341 9128 9970 0872 1842	8418 9210 0057 0965 1943	8495 9292 0145 1060 2045	8572 9375 0233 1155 2148	$\begin{array}{c} 8650 \\ 9458 \\ \hline 0323 \\ 1251 \\ 2251 \end{array}$	$\begin{array}{c} 8728 \\ 9542 \\ \hline 0413 \\ 1348 \\ 2355 \end{array}$	13 14 15 16 17	26 27 29 31 34	38 41 44 47 51	51 55 58 63 68	64 68 73 78 85
	1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	2·2460 2·3559 2·4751 2·6051 2·7475	2566 3673 4876 6187 7625	2673 3789 5002 6325 7776	2781 3906 5129 6464 7929	2889 4023 5257 6605 8083	2998 4142 5386 6746 8239	3109 4262 5517 6889 8397	3220 4383 5649 7034 8556	3332 4504 5782 7179 8716	3445 4627 5916 7326 8878	18 20 22 24 26	37 40 43 47 52	55 60 65 71 78	73 79 87 95 104	119
	1.239 1.257 1.274 1.292 1.309	71 72 73 74 75	2:9042 3:0777 3:2709 3:4874 3:7321	9208 0961 2914 5105 7583	9375 1146 3122 5339 7848	9544 1334 3332 5576 8118	9714 1524 3544 5816 8391	9887 1716 3759 6059 8667	0061 1910 3977 6305 8947	0237 2106 4197 6554 9232	0415 2305 4420 6806 9520	0595 2506 4646 7062 9812	29 32 36 41 46	81	96		161
`	1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	4·0108 4·3315 4·7046 5·1446 5·6713	0408 3662 7453 1929 7297	0713 4015 7867 2422 7894	1022 4374 8288 2924 8502	1335 4737 8716 3435 9124	1653 5107 9152 3955 9758	$\begin{array}{c} 1976 \\ 5483 \\ 9594 \\ 4486 \\ \hline 0405 \end{array}$	2303 5864 0045 5026 1066	$\begin{array}{c} 2635 \\ 6252 \\ \hline 0504 \\ 5578 \\ \hline 1742 \end{array}$	$\begin{array}{c} 2972 \\ 6646 \\ \overline{0}970 \\ 6140 \\ \overline{2}432 \end{array}$					
	1.414 1.431 1.449 1.466 1.484	81 82 83 84 85	6:3138 7:1154 8:1443 9:514 11:43	3859 2066 2636 9.677 11.66	4596 3002 3863 9.845 11.91	5350 3962 5126 10.02 12.16			7720 6996 9152 10·58 13·00	8548 8062 0579 10:78 13:30	9395 9158 2052 10·99 13·62	0264 0285 3572 11•20 13•95	lo		r su		s no ently
	1.501 1.518 1.536 1.553 1.571	86 87 88 89 90	14:30 19:08 28:64 57:29 ∞	19·74 30·14	20.45 31.82	21.20 33.69	22 .0 2 35 . 80	22.90 38.19	23.86 40.92	17:34 24:90 44:07 191:0	26.03 47.74	27.27 52.08					

Radian = 0017 | 0035 | 0052 | 0070 | 0037 | 0105 | 0122 | 0140 | 0157 |

Radian.	ree.	0′	6'	12'	18'	24'	30′	36′	42'	48′	54'	Me	an i	Diffe	erenc	es.
Rad	Degree.	0°·0	0°·1	0°·2	03	0°·4	0°·5	0°·6	0°·7	0°.8	0°-9	1′	2′	3′	4′	5′
-0000 -0475	0	57.29	52.08	286·5 47·74	44.07	40.92	38.19		33.69	71.62 31.82	30.14					
0349 0524	3	28 64 19 08		26.03 17.89			22.90 16.35			20·45 15·06						
·0694 ·0873	4 5	14·30 11·43		13.62 10.99			12.71 10.39	12·43 10·20		11·91 9·845						
°1047	6	9·5144 8·1443	3572 0285	$\frac{2052}{9158}$	0579 8062	$\frac{\overline{9}152}{\overline{6}996}$	$\frac{7}{7}69$ $\frac{7}{5}958$	$\frac{\overline{6427}}{4947}$	5126 3962	$\frac{3}{3}63$	$\frac{\overline{2}636}{\overline{2}066}$	Mea	n di	ffere	nces	not
1396	8	7.1154	0264	9395	8548	7720	$\frac{6}{6}$ 912	6122	5350	4596	3859	suffi	cier	tly	accu	rate.
·1571 ·1745	9 10	6·3138 5·6713	2432 6140	1742 5578	1066 5026	0405 4486	9758 3955	9124 3435	8502 2924	7894 2422	7297 1929					
·1920 ·2094	11 12	5·1446 4·7046	0970 6646	0504 6252	0045 5864	9594 5483	9152 5107	8716 4737	8288 4374	7867 4015	7453 3662					
*2269	13	4.3315	2972	2635	2303	1976	1653	1335	1022	0713	0408					
·2443 ·2618	14 15	4·0108 3·7321	9812 7062	9520 6806	9232 6554	8947 6305	8667 6059	8391 5816	8118 5576	7848 5339	7583 5105					
·2793 ·2967	16 17	3·4874 3·2709	4646 2506	4420 2305	4197 2106	3977 1910	3759 1716	3544 1524	3332 1334	3122 1146	2914 0961	36 32	72 64		144 129	
3142	18	3.0777 2.9042	0595 8878	0415 8716	0237 8556	0061	9887	9714	9544	9375	9208	29	58	87	116	
·3316 ·3491	19 20	2.7475	7326	7179	7034	8397 6889	8239 6746	8083 6605	7929 6464	7776 6325	7625 6187	26 24	52 57	78 71		131 119
*3665 *3840	21 22	2.6051 2.4751	5916 4627	5782 4504	5649 4383	5517 4262	5386 4142	5257 4023	5129 3906	5002 3789	4876 3673	22 20	43 40	65 60	87 79	108 99
'4014 '4189 '4363	23 24 25	2.3559 2.2460 2.1445	3445 2355 1348	3332 2251 1251	3220 2148 1155	3109 2045 1060	2998 1943 0965	2889 1842 0872	2781 1742 0778	2673 1642 0686	2566 1543 0594	18 17 16	37 34 31	55 51 47	73 68 63	92 85 78
4538	26	2.0503	0413	0323	0233	0145	0057	9970	9883	9797	9711	15	29	44	58	73
.4712	27	1.9626 1.8807	9542 8728	9458	9375 8572	9292	9210	9128	9047	8967	8887	14	27	41	55	68
4887 5061	28 29	1.8040 1.7321	7966 7251	8650 7893 7182	7820 7113	8495 7747 7045	8418 7675	8341 7603	8265 7532	8190 7461	8115 7391	13 12	26 24	38 36	51 48	64 60
•5236	30		6577		6447	6383	6977	6909	6842	6775	6709	11	23	34	45	56
·5411 ·5585	31 32	1.6643 1.6003	5941	6512 5880	5818	5757	6319 5697	6255 5637	6191 5577	6128 5517	6066 5458	11 10	21 20	$\frac{32}{30}$	43 40	53 50
•5760 •5934	33 34	1.5399 1.4826	5340 4770	5282 4715	5224 4659	5166 4605	5108 4550	5051 4496	4994 4442	4938 4388	4882 4335	10 9	19 18	29 27	38 36	48 45
·6109	35	1.4281	4229	4176	4124	4071	4019	3968	3916	3865	3814	9	17	26	34	43
6283 6458	36 37	1·3764 1·3270	3713 3222	3663 3175	3613 3127	3564 3079	3514 3032	3465 2985	3416 2938	3367 2892	3319 2846	8	16 16	$\frac{25}{24}$	33 31	41 39
6632	38	1.2799	2753 2305	2708	2662 2218	2617 2174	2572	2527	2482	2437	2393	8	15	23	30	38
*6807 *6981	39 40	1·2349 1·1918	1875	2261 1833	1792	1750	2131 1708	2088 1667	2045 1626	2002 1585	1960 1544	7	14 14	22 21	29 18	36 34
·7156 ·7330	41 42	1·1504 1·1106	1463 1067	1423 1028	1383 0990	1343 0951	1303 0913	1263 0875	1224 0837	1184 0799	1145 0761	7 6	13 13	20 19	27 25	33 32
·7505 ·7679	43 44	1.0724	0686 0319	0649 0283	0612 0247	0575 0212	0538 0176	0501 0141	0464 0105	0428 0070	0392 0035	6	$\frac{12}{12}$	18 18	$\frac{25}{24}$	31 30
•7854	45	1.0000	9965	9930	9896	9861	9827	9793	9759	9725	9691	6	11	17	23	29
	I	Radian=	= 0017	0035	0052	0070	0087	0105	0122	0140	0157					

lan,	ree.	0′	6′	12′	18′	24'	30′	36′	42′	48'	54'	Me	an I	Diffe	renc	es.
Radian.	Degree.	0°·0	0°·1	0^.2	0°·3	0°•4	0°·5	0°∙6	0°•7	0°•8	0°·9	, 1'	2′	3′	4′	5′
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	1 0000 0 9657 9325 9004 8693 8391	9965 9623 9293 8972 8662 8361	9930 9590 9260 8941 8632 8332	9896 9556 9228 8910 8601 8302	9861 9523 9195 8878 8571 8273	9827 9490 9163 8847 8541 8243	9793 9457 9131 8816 8511 8214	9759 9424 9099 8785 8481 8185	9725 9391 9067 8754 8451 8156	9691 9358 9036 8724 8421 8127	6 5 5 5 5	11 11 11 10 10	17 17 16 16 15	23 22 21 21 20 20	29 28 27 26 25 24
*890 *908 *925 *942 *960	51 52 53 54 55	*8098 *7813 *7536 *7265 *7002	8069 7785 7508 7239 6976	8040 7757 7481 7212 6950	8012 7729 7454 7186 6924	7983 7701 7427 7159 6899	7954 7673 7400 7133 6873	7926 7646 7373 7107 6847	7898 7618 7346 7080 6822	7869 7590 7319 7054 6796	7841 7563 7292 7028 6771	5 5 4 4	9 9 9 9	14 14 14 13 13	19 18 18 18 17	24 23 23 22 21
•977 •995 1•012 1•030 1•047	56 57 58 59 60	·6745 ·6494 ·6249 ·6009 ·5774	6720 6469 6224 5985 5750	6694 6445 6200 5961 5727	6669 6420 6176 5938 5704	6644 6395 6152 5914 5681	6619 6371 6128 5890 5658	6594 6346 6104 5867 5635	6569 6322 6080 5844 5612	6544 6297 6056 5820 5589	6519 6273 6032 5797 5566	4 4 4 4	8 8 8 8	13 12 12 12 12 12	17 16 16 16 16	21 20 20 20 19
1·065 1·082 1·100 1·117 1·134	61 62 63 64 65	*5543 *5317 *5095 *4877 *4663	5520 5295 5073 4856 4642	5498 5272 5051 4834 4621	5475 5250 5029 4813 4599	5452 5228 5008 4791 4578	5430 5206 4986 4770 4557	5407 5184 4964 4748 4536	5384 5161 4942 4727 4515	5362 5139 4921 4706 4494	5340 5117 4899 4684 4473	4 4 4 4	8 7 7 7 7	11 11 11 11 11	15 15 15 14 14	19 18 19 18 18
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	*4452 *4245 *4040 *3839 *3640	4431 4224 4020 3819 3620	4411 4204 4000 3799 3600	4390 4183 3979 3779 3581	4369 4163 3959 3759 3561	4348 4142 3939 3739 3541	4327 4122 3919 3719 3522	4307 4101 3899 3699 3502	4286 4081 3879 3679 3482	4265 4061 3859 3659 3463	3 3 3 3	7 7 7 7	10 10 10 10 10	14 14 13 13	17 17 17 17 16
1·239 1·257 1·274 1·292 1·309	71 72 73 74 75	*3443 *3249 *3057 *2867 *2679	3424 3230 3038 2849 2661	3404 3211 3019 2830 2642	3385 3191 3000 2811 2623	3365 3172 2981 2792 2605	3346 3153 2962 2773 2586	3327 3134 2943 2754 2568	3307 3115 2924 2736 2549	3288 3096 2905 2717 2530	3269 3076 2886 2698 2512	3 3 3 3	6 6 6 6	10 10 9 9	13 13 13 13 12	16 16 16 16
1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	*2493 *2309 *2126 *1944 *1763	2475 2290 2107 1926 1745	2456 2272 2089 1908 1727	2438 2254 2071 1890 1709	2419 2235 2053 1871 1691	2401 2217 2035 1853 1673	2382 2199 2016 1835 1655	2364 2180 1998 1817 1638	2345 2162 1980 1799 1620	2327 2144 1962 1781 1602	3 3 3 3	6 6 6 6	9 9 9 9	12 12 12 12 12	15 15 15 15 15
1 ·414 1 ·431 1 ·449 1 ·466 1 ·484	81 82 83 84 85	1584 1405 1228 1051 0875	1566 1388 1210 1033 0857	1548 1370 1192 1016 0840	1530 1352 1175 0998 0822	1512 1334 1157 0981 0805	1495 1317 1139 0963 0787	1477 1299 1122 0945 0769	1459 1281 1104 0928 0752	1441 1263 1086 0910 0734	1423 1246 1069 0892 0717	3 3 3 3	6 6 6 6	9 9 9 9	12 12 12 12 12	15 15 15 15 15
1·501 1·518 1·536 1·553 1·571	86 87 88 89 90	*0699 *0524 *0349 *0175	0682 0507 0332 0157	0664 0489 0314 0140	0647 0472 0297 0122	0629 0454 0279 0105	0612 0437 0262 0087	0594 0419 0244 0070	0577 0402 0227 0052	0559 0384 0209 0035	0542 0367 0192 0017	3 3 3 3	6 6 6	9 9 9	12 12 12 12	15 15 15 15

Radian.	ree.	Ó'	6′	12'	18'	24'	30°	36′	42'	48'	54'	Me	an l	Diffe	renc	es.
Rad	Degree.	0°•0	0°·1	0°·2	0°.3	0°·4	0°.5	0°.6	0°·7	0°.8	0°•9	1′	2′	3′	4′	5′
*0000 *0175 *0349 *0524 *0698 *0873	0 1 2 3 4 5	1.0000 0002 0006 0014 0024 0038	0000 0002 0007 0015 0026 0040	0000 0002 0007 0016 0027 0041	0000 0003 0008 0017 0028 0043	0000 0003 0009 0018 0030 0045	0000 0003 0010 0019 0031 0046	0001 0004 0010 0020 0032 0048	0001 0004 0011 0021 0034 0050	0001 0005 0012 0022 0035 0051	0001 0006 0013 0023 0037 0053	0 0 0 0 0	0 0 0 0 0	0 0 0 1 1	0 0 1 1 1 1	0 0 1 1 1
*1047 *1222 *1396 *1571 *1745	6 7 8 9 10	0055 0075 0098 0125 0154	0057 0077 0101 0127 0157	0059 0079 0103 0130 0161	0061 0082 0106 0133 0164	0063 0084 0108 0136 0167	0065 0086 0111 0139 0170	0067 0089 0114 0142 0174	0069 0091 0116 0145 0177	0071 0093 0119 0148 0180	0073 0096 0122 0151 0184	0 0 0 0 1	1 1 1 1	1 1 1 1 2	1 2 2 2 2	2 2 2 2 3
*1920 *2094 *2269 *2443 *2618	11 12 13 14 15	0187 0223 0263 0306 0353	0191 0227 0267 0311 0358	0194 0231 0271 0315 0363	0198 0235 0276 0320 0367	0201 0239 0280 0324 0372	0205 0243 0284 0329 0377	0209 0247 0288 0334 0382	0212 0251 0293 0338 0388	0216 0255 0297 0343 0393	0220 0259 0302 0348 0398	1 1 1 1	1 1 2 2	2 2 2 2 3	2 3 3 3	3 4 4 4
·2793 ·2967 ·3142 ·3316 ·3491	16 17 18 19 20	0403 0457 0515 0576 0642	0408 0463 0521 0583 0649	0413 0468 0527 0589 0655	0419 0474 0533 0595 0662	0424 0480 0539 0602 0669	0429 0485 0545 0608 0676	0435 0491 0551 0615 0683	0440 0497 0557 0622 0690	0446 0503 0564 0628 0697	0451 0509 0570 0635 0704	1 1 1 1	2 2 2 2 2	3 3 3 4	4 4 4 • 4 5	4 5 5 6 6
*3665 *3840 *4014 *4189 *4363	21 22 23 24 25	0711 0785 0864 0946 1034	0719 0793 0872 0955 1043	0726 0801 0850 0963 1052	0733 0808 0888 0972 1061	0740 0816 0896 0981 1070	0748 0824 0904 0989 1079	0755 0832 0913 0998 1089	0763 0840 0921 1007 1098	0770 0848 0929 1016 1107	0778 0856 0938 1025 1117	1 1 1 1 2	2 3 3 3	4 4 4 5	5 6 6 6	6 7 7 7
•4538 •4712 •4887 •5061 •5236	26 27 28 29 30	1126 1223 1326 1434 1547	1136 1233 1336 1445 1559	1145 1243 1347 1456 1570	1155 1253 1357 1467 1582	1164 1264 1368 1478 1594	1174 1274 1379 1490 1606	1184 1284 1390 1501 1618	1194 1294 1401 1512 1630	1203 1305 1412 1524 1642	1213 1315 1423 1535 1654	2 2 2 2 2	3 4 4 4	5 5 6 6	6 7 7 8	8 9 9 9
*5411 *5585 *5760 *5934 *6109	31 32 33 34 35	1666 1792 1924 2062 2208	1679 1805 1937 2076 2223	1691 1818 1951 2091 2238	1703 1831 1964 2105 2253	1716 1844 1978 2120 2268	1728 1857 1992 2134 2283	1741 1870 2006 2149 2299	1753 1883 2020 2163 2314	1766 1897 2034 2178 2329	1779 1910 2048 2193 2345	2 2 2 2 3	4 4 5 5 5	6 7 7 7 8	8 9 9 10 10	10 11 12 12 13
•6283 •6458 •6632 •6807 •6981	36 37 38 39 40	2361 2521 2690 2868 3054	2376 2538 2708 2886 3073	2392 2554 2725 2904 3093	2408 2571 2742 2923 3112	2424 2588 2760 2941 3131	2440 2605 2778 2960 3151	2456 2622 2796 2978 3171	2472 2639 2813 2997 3190	2489 2656 2831 3016 3210	2505 2673 2849 3035 3230	3 3 3 3	5 6 6 7	8 9 9 10 10	11 12 12 13 13	13 14 15 15 16
•7156 •7330 •7505 •7679 •7854	41 42 43 44 45	3250 3456 3673 3902 4142	3270 3478 3696 3925 4167	3291 3499 3718 3949 4192	3311 3520 3741 3972 4217	3331 3542 3763 3996 4242	3352 3563 3786 4020 4267	3373 3585 3809 4044 4293	3393 3607 3832 4069 4318	3414 3629 3855 4093 4344	3435 3651 3878 4118 4370	4 4 4 4	7 7 8 8 8	10 11 11 12 13	14 14 15 16 17	17 18 19 20 21
	I	l Radian =	=0017	0035	0052	0070	0087	0105	0122	0140	0157					

ii.	ee.	O'	6′	12'	18'	24'	30′	36′	42'	48'	54'	Ме	an	Diffe	renc	es.
Radian.	Degree.	00	0°·1	0°·2	0°.3	0°·4	0°·5	0°•6	0°·7	0°.8	0°.9	1'	2′	3′	4′	5′
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	*1*4142 4396 4663 4945 5243 5557	4167 4422 4690 4974 5273 5590	4192 4448 4718 5003 5304 5622	4217 4474 4746 5032 5335 5655	4242 4501 4774 5062 5366 5688	4267 4527 4802 5092 5398 .5721	4293 4554 4830 5121 5429 5755	4318 4581 4859 5151 5461 5788	4344 4608 4887 5182 5493 5822	4370 4635 4916 5212 5525 5856	4 4 5 5 5 6	8 9 10 10 10 11	13 13 14 15 16 17	17 18 19 20 21 22	21 22 23 25 26 28
*890 *908 *925 *942 *960	51 52 53 54 55	5890 6243 6616 7013 7434	5925 6279 6655 7054 7478	5959 6316 6694 7095 7522	5994 ° 6353 6733 7137 7566	6029 6390 6772 7179 7610	6064 6427 6812 7221 7655	6099 6464 6852 7263 7700	6135 6502 6892 7305 7745	6171 6540 6932 7348 7791	6207 6578 6972 7391 7837	6 6 7 7 7	12 12 13 14 15	18 19 20 21 22	24 25 26 28 30	30 31 33 35 37
·977 ·995 1·012 1·030 1·047	56 57 58 59 60	7883 8361 8871 9416 2:0000	7929 8410 8924 9473 0061	7976 8460 8977 9530 0122	8023 8510 9031 9587 0183	8070 8561 9084 9645 0245	8118 8612 9139 9703 0308	8166 8663 9194 9762 0371	8214 8714 9249 9821 0434	8263 8766 9304 9880 0498	8312 8818 9360 9940 0562	8 8 9 10 10	16 17 18 19 21	24 26 27 29 31	32 34 36 39 42	40 43 46 49 52
1.065 1.082 1.100 1.117 1.134	61 62 63 64 65	0627 1301 2027 2812 3662	0692 1371 2103 2894 3751	0757 1441 2179 2976 3841	0824 1513 2256 3060 3931	0890 1584 2333 3144 4022	0957 1657 2412 3228 4114	1025 1730 2490 3314 4207	1093 1803 2570 3400 4300	1162 1877 2650 3486 4395	1231 1952 2730 3574 4490	11 12 13 14 15	22 24 26 28 31	33 37 39 43 46	45 48 52 57 62	56 61 66 71 77
1·152 1·169 1·187 1·204 1·222	66 67 68 69 70	4586 5593 6695 7904 9238	4683 5699 6811 8032 9379	4780 5805 6927 8161 9521	4879 5913 7046 8291 9665	4978 6022 7165 8422 9811	5078 6131 7285 8555 9957	5180 6242 7407 8688 0106	5282 6354 7529 8824 0256	5384 6466 7653 8960 0407	5488 6580 7778 9099 0561	17 18 20 22 25	34 37 40 44 49	50 55 61 67 74	89	84 91 101 111 123
1·239 1·257 1·274 1·292 1·309	71 72 73 74 75	3·0716 2361 4203 6280 8637	0872 2535 4399 6502 8890	1030 2712 4598 6727 9147	1190 2891 4799 6955 9408	1352 3072 5003 7186 9672	1515 3255 5209 7420 9939	1681 3440 5418 7657 0211	1848 3628 5629 7897 0486	2017 3817 5843 8140 0765	2188 4009 6060 8387 1048	27 31 35 39 45		92 104 118	106 122 138 157 180	153 173 196
1·326 1·344 1·361 1·379 1·396	76 77 78 79 80	4 ·1336 4454 8097 5 ·2408 7588	1627 4793 8496 2883 8164	1923 5137 8901 3367 8751	2223 5486 9313 3860 9351	2527 5841 9732 4362 9963	$\begin{array}{c} 2837 \\ \underline{6202} \\ \overline{0159} \\ \underline{4874} \\ \overline{0589} \end{array}$	$\begin{array}{c} 3150 \\ \underline{6569} \\ \overline{0593} \\ \underline{5396} \\ \overline{1227} \end{array}$	$3469 \\ 6942 \\ \overline{1034} \\ 5928 \\ \overline{1880}$	3792 7321 $\overline{1}484$ 6470 $\overline{2}546$	4121 7706 1942 7023 3228					
1.414 1.431 1.449 1.466 1.484	81 82 83 84 85	6·3925 7·1853 8·2055 9·5668 11·47	4637 2757 3238 9.728 11.71		6111 4635 5711 10.07 12.20				9273 8700 1129 10.83 13.34		$ \begin{array}{r} 0972 \\ \hline 0905 \\ \hline 4105 \\ 11.25 \\ 13.99 \end{array} $	10		r su	ence fficie	s no ntly
1.501 1.518 1.536 1.553 1.571	86 87 88 89 90	14:34 19:11 28:65 57:30	19.77 30.16	20·47 31·84	15.50 21.23 33.71 81.85	22.04 35.81	22.93 38.20	23.88 40.93	24.92 44.08	26.05 47.75	52.09					

Radian=0017 0035 0052 0070 0087 0105 0122 0140 0157

. 1								<u> </u>	<u> </u>	1		7.				
Radian.	Degree.	0′	6′	12′	18′	24'	30′	36′	42'	48'	54'	Me	an	Diffe	eren	ces.
Rad	Deg	0°·0	0°·1	0°.2	0°.3	0°·4	0°·5	0°.6	0°·7	0°.8	0°.9	1′	2′	3′	4'	5′
	_											_	-		•	
00000	0		573.0	286.5	191:0	143.2	114.6	95:49	81 -85	71.62	63.66			٠.		
.0175	1	57:30	52.09	47.75	44.08	40.93	38.20	35.81	33.71	31.84	30.16					
0349	2	28.65	27.29			23.88	22.93	22.04	21.23	20.47	19.77					
*0524 *0698	3 4	19·11 14·34	13.99	17.91 13.65	13.34	13.03	12.75	12.47	19.50	15.09 11.95	11.71					
.0873	5		11.25	11.03	10.83	10.63	10.43	10.25	10.07	9.895	9.728					
.1047	6	9*5668	4105	2593	1129	9711	8337	7004	5711	4457	3238					
1222	7	8.2055	0905	9787	8700	7642	6613	5611	4635	3684	$\frac{5255}{2757}$	Mea	n di	ffere	nces	not
1396	8	7.1853	0972	0112	9273	8454	7655	6874	6111	5366	4637	suffi	cien	tly	accu	rate.
·1571	9	6.3925	3228	2546	1880	1227	0589	9963	9351	8751	8164					
1754	10	5.7588	7023	6470	5928	5396	4847	4362	3860	3367	2883					
·1920	11	2408	1942	1484	1034	0593	0159	9732	9313	8901	8496					
2094	12	4.8097	7706	7321	6942	6569	6202	5841	5486	5137	4793					
.2269	13	4454	4121	3792	3469	3150	2837	2527	2223	1923	1627					
.2443	14	1336	1048	0765	0486	0211	9939	9672	9408	9147	8890					
*2618	15	3.8637	8387	8140	7897	7657	7420	7186	6955	6727	6502					
.2793	16	6280	6060	5843	5629	5418	5209	5003	4799	4598	4399	35	69	104.	138	173
•2967	17	4203	4009	3817	3628	3440	3255	3072	2891	2712	2535	31	61	92	122	153
.3142	18	2361	2188	2017	1848	1681	1515	1352	1190	1030	0872	27	55		106	
*3316 *3491	19 20	0716 2:9238	0561 9099	0407 8960	0256 8824	0106 8688	9957 8555	9811 8422	9665	9521 8161	9379	$\frac{25}{22}$	49 44	74 67		123 111
2421	20	2 8200	8088	3800	0044	0000	0000	8444	8291	9101	8032	ZZ	44	01	09	111
*3665	21	7904	7778	7653	7529	7407	7285	7165	7046	6927	6811	20	40	61		101
·3840 ·4014	22 23	6695 5593	6580 5488	6466 5384	6354 5282	6242 5180	6131 5078	6022 4978	5913 4879	5805 4780	5699 4683	18 17	37 34	55 50	74 68	91 84
4189	24	4586	4490	4395	4300	4207	4114	4022	3931	3841	3751	15	31	46	62	77
.43 63	25	3662	3574	3486	3400	3314	3228	3144	3060	2976	2894	14	28	43	57	71
4538	26	2812	2730	2650	2570	2490	2412	2333	2256	2179	2103	13	26	39	52	66
.4712	27	2027	1952	1877	1803	1730	1657	1584	1513	1441	1371	12	24	37	48	61
·4887 ·5061	28 29	1301 0627	1231 0562	1162 0498	1093 0434	1025 0371	0957 0308	0890 0245	0824 0183	0757 0122	0692 0061	11 10	$\frac{22}{21}$	33 31	45	56 52
•5236	30	2.0000	9940	9880	9821	9762	9703	9645	9587	9530	9473	10	19	29	39	49
0200	30	2 0000	0040	0000	8021	0102	0100	9040	8001		9413	10	10	20	00	***
•5411	31	1.9416	9360	9304	9249	9194	9139	9084	9031	8977	8924	9	18	27	36	46
5535	32 33	8871 8361	8818	8766 8263	8714 8214	8663 8166	8612	8561 8070	8510 8023	8460 7976	8410 7929	8	17 16	26 24	34 32	43 40
·5760 ·5934	34	7883	8312 7837	7791	7745	7700	8118 7655	7610	7566	7522	7478	7	15	22	30	37
6109	35	7434	7391	7348	7305	7263	7221	7179	7137	7095	7054	7	14	21	28	35
·6283	36	7013	6972	6932	6892	6852	6812	6772	6733	6694	6655	7	13	20	26	33
·6458	37	6616	6578	6540	6502	6464	6427	6390	6353	6316	6279	6	12	19	25	31
6807	38 39	6243 5890	6207 5856	6171 5822	6135 5788	6099 5755	6064 5721	6029 5688	5994 5655	5959 5622	5925 5590	6	$^{12}_{11}$	18 17	24 22	30 28
6981	40	5557	5525	5493	5461	5429	5398	5366	5335	5304	5273	5	10	16	21	26
·7156	41	5243	5212	5182	5151	5121	5092	5062	5032	5003	4974	5	10	15	20	25
.7330	42	4945	4916	4887	4859	4830	4802	4774	4746	4718	4690	5	10	14	19	23
7505	43	4663	4635	4608	4581	4554	4527	4501	4474	4448	4422	4	9	13 13	18 17	$\frac{22}{21}$
7679 7854	44 45	4396 4142	4370 4118	4344 4093	4318 4069	4293 4044	4267 4020	3996	4217 3972	4192 3949	4167 3925	4	8	12	16	20
. 504	-0			1.00	1000		1020	5555	55,2							
•	F	Radian =	0017	0035	0052	0070	0087	0105	0122	0140	0157					

an.	ee.	0'	6′	12'	18′	24'	30′	36′	42'	48'	54'	Me	an .	Diffe	renc	es.
Radian.	Degree.	0°·0	0°·1	0°•2	0°.3	0°·4	0°.5	0°.6	0°·7	0°·8	0^.9	1'	2′	3′	4'	5'
*785 *803 *820 *838 *855 *873	45 46 47 48 49 50	1·4142 3902 3673 3456 3250 3054	4118 3878 3651 3435 3230 3035	4093 3855 3629 3414 3210 3016	4069 3832 3607 3393 3190 2997	4044 3809 3585 3373 3171 2978	4020 3786 3563 3352 3151 2960	3996 3763 3542 3331 3131 2941	3972 3741 3520 3311 3112 2923	3949 3718 3499 3291 3093 2904	3925 3696 3478 3270 3073 2886	4 4 4 3 3	8 8 7 7 6	12 11 11 10 10	16 15 14 14 13 13	20 19 18 17 16 15
·890 ·908 ·925 ·942 ·960	51 52 53 54 55	2868 2690 2521 2361 2208	2849 2673 2505 2345 2193	2831 2656 2489 2329 2178	2813 2639 2472 2314 2163	2796 2622 2456 2299 2149	2778 2605 2440 2283 2134	2760 2588 2424 2268 2120	2742 2571 2408 2253 2105	2725 2554 2392 2238 2091	2708 2538 2376 2223 2076	3 3 3 2	6 5 5 5	9 9 8 8 7	12 12 11 10 10	15 14 13 13 12
•977 •995 •012 •030 •017	56 57 58 59 60	2062 1924 1792 1666 1547	2048 1910 1779 1654 1535	2034 1897 1766 1642 1524	2020 1883 1753 1630 1512	2006 1870 1741 1618 1501	1992 1857 1728 1606 1490	1978 1844 1716 1594 1478	1964 1831 1703 1582 1467	1951 1818 1691 1570 1456	1937 1805 1679 1559 1445	2 2 2 2 2 2	5 4 4 4 4	7 7 6 6 6	9 9 8 8 7	19 11 10 10
*065 *082 *100 *117 *134	61 62 63 64 65	1434 1326 1223 1126 1034	1423 1315 1213 1117 1025	1412 1305 1203 1107 1016	1401 1294 1194 1098 1007	1390 1284 1184 1089 0998	1379 1274 1174 1079 0989	1368 1264 1164 1070 0981	1357 1253 1155 1061 0972	1347 1243 1145 1052 0963	1336 1233 1136 1043 0955	2 2 2 2 1	4 3 3 3	5 5 5 4	7 7 6 6 6	8 8 8
·152 ·169 ·187 ·204 ·222	66 67 68 69 70	0946 0864 0785 0711 0642	0938 0856 0778 0704 0635	0929 0848 0770 0697 0628	0921 0840 0763 0690 0622	0913 0832 0755 0683 0615	0904 0824 0748 0676 0608	0896 0816 0740 0669 0602	0888 0808 0733 0632 0595	0880 0801 0726 0655 0589	0872 0793 0719 0649 0583	1 1 1 1	3 2 2 2 2	4 4 4 3	6 5 5 4	6
·239 ·257 ·274 ·292 ·309	71 72 73 74 75	0576 0515 0457 0403 0353	0570 0509 0451 0398 0348	0564 0503 0446 0393 0343	0557 0497 0440 0388 0338	0551 0491 0435 0382 0334	0545 0485 0429 0377 0329	0539 0480 0424 0372 0324	0533 0474 0419 0367 0320	0527 0468 0413 0363 0315	0521 0463 0408 0358 0311	1 1 1 1	2 2 2 2 2	3 3 3 2	4 4 3 3	4 4 4
·326 ·344 ·361 ·379 ·3.6	76 77 78 79 80	0306 0263 0223 0187 0154	0302 0259 0220 0184 0151	0297 0255 0216 0180 0148	0293 0251 0212 0177 0145	0288 0247 0209 0174 0142	0284 0243 0205 0170 0139	0280 0239 0201 0167 0136	0276 0235 0198 0164 0133	0271 0231 0194 0161 0130	0267 0227 0191 0157 0127	1 1 1 1 0	1 1 1 1	2 2 2 2 1	3 2 2 2 2	4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
·414 ·431 ·449 ·466 ·484	81 82 83 84 85	0125 0098 0075 0055 0038	0122 0096 0073 0J53 0037	0119 0093 0071 0051 0035	0116 0091 0069 0050 0034	0114 0089 0067 0048 0032	0111 0086 0065 0046 0031	0108 0084 0063 0045 0030	0106 0082 0061 0043 0028	0103 0079 0059 0041 0027	0101 0077 0057 0040 0026	0 0 0 0	1 1 1 0	1 1 1 1	2 2 1 1 1	2 2 2 1 1
*501 *518 *536 *553 *571	86 87 88 89 90	0024 0014 0006 0002 1:0000	0023 0013 0006 0001	0022 0012 0005 0001	0021 0011 0004 0001	00°0 0010 0004 0001	0019 0010 0003 0000	0018 0009 0003 0000	0017 0008 0003 0000	0016 0007 0002 0000	0015 0007 0002 0000	0 0 0 0	0 0 0	1 0 0 0	1 1 0 0	11 (

Radian = 0017 | 0035 | 0052 | 0070 | 0087 | 0105 | 0122 | 0140 | 0137 |

	0′	20′	40′		0′	20′	40′	0	0′	20′	40′
0	0.0000	0.0058	0.0116	60	1:0000	1.0050	1.0101	120	1.7321	1.7350	1.7378
1	0.0175	0.0233	0.0291	61	1:0151	1.0201	1.0251	121	1.7407	1.7436	1.7464
2	0.0349	0.0407	0.0465	62	1:0301	1.0351	1.0400	122	1.7492	1.7521	1.7549
3	0.0524	0.0582	0.0640	63	1:0450	1.0500	1.0549	123	1.7576	1.7604	1.7632
4	0.0698	0.0756	0.0814	64	1:0598	1.0648	1.0697	124	1.7659	1.7686	1.7713
5	0.0872	0.0931	0.0989	65	1:0746	1.0795	1.0844	125	1.7740	1.7767	1.7794
6	0·1047	0·1105	0·1163	66	1.0893	1.0942	1.0990	126	1.7820	1.7846	1.7873
7	0·1221	0·1279	0·1337	67	1.1039	1.1087	1.1136	127	1.7899	1.7925	1.7950
8	0·1395	0·1453	0·1511	68	1.1184	1.1232	1.1280	128	1.7976	1.8001	1.8027
9	0·1569	0·1627	0·1685	69	1.1328	1.1376	1.1424	129	1.8052	1.8077	1.8101
10	0·1743	0·1801	0·1859	70	1.1472	1.1519	1.1567	130	1.8126	1.8151	1.8175
11	0·1917	0·1975	0·2033	71	1·1614	1·1661	1·1709	131	1.8199	1.8223	1.8247
12	0·2091	0·2148	0·2206	72	1·1756	1·1803	1·1850	132	1.8271	1.8294	1.8318
13	0·2264	0·2322	0·2380	73	1·1896	1·1943	1·1990	133	1.8341	1.8364	1.8387
14	0·2437	0·2495	0·2553	74	1·2036	1·2083	1·2129	134	1.8410	1.8433	1.8455
15	0·2611	0·2668	0·2726	75	1·2175	1·2221	1·2267	135	1.8478	1.8500	1.8522
16	0.2783	0.2841	0·2899	76	1·2313	1·2359	1.2405	136	1.8544	1.8565	1.8587
17	0.2956	0.3014	0·3071	77	1·2450	1·2496	1.2541	137	1.8608	1.8630	1.8651
18	0.3129	0.3186	0·3244	78	1·2586	1·2632	1.2677	138	1.8672	1.8692	1.8713
19	0.3301	0.3358	0·3416	79	1·2722	1·2766	1.2811	139	1.8733	1.8754	1.8774
20	0.3473	0.3530	0·3587	80	1·2856	1·2900	1.2945	140	1.8794	1.8814	1.8833
21	0.3645	0.3702	0·3759	81	1·2989	1 3033	1·3077	141	1.8853	1.8872	1.8891
22	0.3816	0.3873	0·3930	82	1·3121	1 3165	1·3209	142	1.8910	1.8929	1.8948
23	0.3987	0.4044	0·4101	83	1·3252	1 3296	1·3339	143	1.8966	1.8985	1.9003
24	0.4158	0.4215	0·4272	84	1·3383	1 3426	1·3469	144	1.9021	1.9039	1.9057
25	0.4329	0.4386	0·4442	85	1·3512	1 3555	1·3597	145	1.9074	1.9092	1.9109
26	0.4499	0.4556	0.4612	86	1:3640	1·3682	1·3725	146	1.9126	1.9143	1.9160
27	0.4669	0.4725	0.4782	87	1:3767	1·3809	1·3851	147	1.9176	1.9193	1.9209
28	0.4838	0.4895	0.4951	88	1:3893	1·3935	1·3977	148	1.9225	1.9241	1.9257
29	0.5008	0.5064	0.5120	89	1:4018	1·4060	1·4101	149	1.9273	1.9288	1.9303
30	0.5176	0.5233	0.5289	90	1:4142	1·4183	1·4224	150	1.9319	1.9333	1.9348
31	0.5345	0.5401	0.5457	91	1·4265	1·4306	1:4346	151	1.9363	1.9377	1.9392
32	0.5513	0.5569	0.5625	92	1·4387	1·4427	1:4467	152	1.9406	1.9420	1.9434
33	0.5680	0.5736	0.5792	93	1·4507	1·4547	1:4587	153	1.9447	1.9461	1.9474
34	0.5847	0.5903	0.5959	94	1·4627	1·4667	1:4706	154	1.9487	1.9500	1.9513
35	0.6014	0.6070	0.6125	95	1·4746	1·4785	1:4824	155	1.9526	1.9538	1.9551
36 37 38 39 40	0.6180 0.6346 0.6511 0.6676 0.6840	0.6236 0.6401 0.6566 0.6731 0.6895	0.6291 0.6456 0.6621 0.6786 0.6950	96 97 98 99	1.4863 1.4979 1.5094 1.5208 1.5321	1·4902 1·5018 1·5132 1·5246 1·5358	1.4941 1.5056 1.5170 1.5283 1.5395	156 157 158 159 160	1.9563 1.9598 1.9633 1.9665 1.9696	1.9575 1.9610 1.9644 1.9676 1.9706	1.9587 1.9621 1.9654 1.9686 1.9716
41	0.7004	0.7059	0.7113	101	1.5432	1.5469	1.5506	161	1.9726	1.9735	1.9745
42	0.7167	0.7222	0.7276	102	1.5543	1.5579	1.5616	162	1.9754	1.9763	1.9772
43	0.7330	0.7384	0.7438	103	1.5652	1.5688	1.5724	163	1.9780	1.9789	1.9797
44	0.7492	0.7546	0.7600	104	1.5760	1.5796	1.5832	164	1.9805	1.9813	1.9821
45	0.7654	0.7707	0.7761	105	1.5867	1.5902	1.5938	165	1.9829	1.9836	1.9844
46	0.7815	0.7868	0.7922	106	1.5973	1.6008	1.6042	166	1.9851	1.9858	1.9865
47	0.7975	0.8028	0.8082	107	1.6077	1.6112	1.6146	167	1.9871	1.9878	1.9884
48	0.8135	0.8188	0.8241	108	1.6180	1.6214	1.6248	168	1.9890	1.9896	1.9902
49	0.8294	0.8347	0.8400	109	1.6282	1.6316	1.6350	169	1.9908	1.9913	1.9919
50	0.8452	0.8505	0.8558	110	1.6383	1.6416	1.6450	170	1.9924	1.9929	1.9934
51	0.8610	0.8663	0.8715	111	1.6483	1.6515	1.6548	171	1.9938	1.9943	1.9947
52	0.8767	0.8820	0.8872	112	1.6581	1.6613	1.6646	172	1.9951	1.9955	1.9959
53	0.8924	0.8976	0.9028	113	1.6678	1.6710	1.6742	173	1.9963	1.9966	1.9969
54	0.9080	0.9132	0.9183	114	1.6773	1.6805	1.6836	174	1.9973	1.9976	1.9978
55	0.9235	0.9287	0.9338	115	1.6868	1.6899	1.6930	175	1.9981	1.9983	1.9986
56	0.9389	0.9441	0.9492	116	1.6961	1.6992	1.7022	176	1.9988	1.9990	1.9992
57	0.9543	0.9594	0.9645	117	1.7053	1.7083	1.7113	177	1.9993	1.9995	1.9996
58	0.9696	0.9747	0.9798	118	1.7143	1.7173	1.7203	178	1.9997	1.9998	1.9999
59	0.9848	0.9899	0.9950	119	1.7233	1.7262	1.7291	179	1.9999	2.0000	2.0000
60	1.0000	1.0050	1.0101	120	1.7321	1.7350	1.7378	180	2.0000	2.0000	2.0000

Desire	Dadian	G!		a		Logarithm o	?
Degree.	Radian.	Sine.	Tangent.	Cosine.	Sine.	Tangent.	Cosine.
5·73 6·30 6·88 7·45 8·02 8·59	·10 ·11 ·12 ·13 ·14 ·15	·0998 ·1098 ·1197 ·1296 ·1395 ·1494	1003 1104 1206 1307 1409	·9973 ·9940 ·9928 ·9916 ·9902 ·9888	2·9993 1·0405 ··0781 ··1127 ··1447 ··1745	1.0015 11.0431 11.0813 11.1164 11.1490 11.1794	1'9978 1'9974 1'9969 1'9963 1'9957 1'9951
9·17 9·74 10·31 10·89 11·46	·16 ·17 ·18 ·19 ·20	*1593 *1692 *1790 *1889 *1987	*1614 *1717 *1820 *1923 *2027	*9872 *9856 *9839 *9820 *9801	"2023 "2284 "2529 "2761 "2981	"2078 "2347 "2600 "2840 "3069	11.9944 11.9937 11.9929 11.9921 11.9913
12.03 12.61 13.18 13.75 14.32	·21 ·22 ·23 ·24 ·25	*2085 *2182 *2280 *2377 *2474	*2131 *2236 *2341 *2447 *2553	•9780 •9759 •9737 •9713 •9689	#3190 #3389 #3579 #3760 #3934	11:3287 11:3495 11:3695 11:3887 11:4071	11*9904 11*9894 11*9884 11*9874 11*9863
14.90 15.47 16.04 16.62 17.19	·26 ·27 ·28 ·29 ·30	*2571 *2667 *2764 *2859 *2955	*2660 *2768 *2876 *2984 *3093	9664 9638 9611 9583 9553	".4101 ".4261 ".4415 ".4563 ".4706	11.4249 11.4421 11.4587 11.4748 11.4904	11.9852 11.9840 11.9827 11.9815 11.9802
17:76 18:33 18:91 19:48 20:05	·31 ·32 ·33 ·34 ·35	*3051 *3146 *3240 *3335 *3429	*3203 *3314 *3425 *3537 *3650	*9523 *9492 *9460 *9428 *9394	".4844 ".4977 ".5106 ".5231 ".5352	11.5056 11.5203 11.5347 11.5487 11.5623	".9788 ".9774 ".9759 ".9744 ".9728
20.63 21.20 21.77 22.34 22.92	•36 •37 •38 •39 •40	*3523 *3616 *3709 *3802 *3894	*3764 *3879 *3994 *4111 *4228	•9359 •9323 •9287 •9249 •9211	11.5469 11.5582 11.5693 11.5800 11.5904	11.5757 11.5887 11.6014 11.6139 11.6261	11*9712 11*9696 11*9679 11*9661 11*9643
23:49 24:06 24:64 25:21 25:78	·41 ·42 ·43 ·44 ·45	3986 4078 4169 4259 4350	*4346 *4466 *4586 *4708 *4831	*9171 *9131 *9090 *9048 *9005	11.6005 11.6104 11.6200 11.6293 11.6385	"6381 "6499 "6615 "6728	11.9624 11.9605 11.9586 11.9565 11.9545
26·36 26·93 27·50 28·07 28·65	·46 ·47 ·48 ·49 ·50	*4439 *4529 *4618 *4706 *4794	*4954 *5080 *5206 *5334 *5463	*8961 *8916 *8870 *8823 *8776	#*6473 #*6560 #*6644 #*6727	#*6950 #*7058 #*7165 #*7270	11.9523 11.9502 11.9479 11.9456 11.9433
29·22 29·79 30·37 30·94 31·51	·51 ·52 ·53 ·54 ·55	*4882 *4969 *5055 *5141 *5227	*5594 *5726 *5859 *5994 *6131	*8727 *8678 *8628 *8577 *8525	#'6886 #'6962 #'7037 #'7111	"7477 "7578 "7678 "7777 "7875	11*9409 11*9384 11*9359 11*9333 11*9307
32·09 32·66 33·23 33·80 34·37	·56 ·57 ·58 ·59 ·60	*5312 *5396 *5480 *5564 *5646	*6269 *6410 *6552 *6696 *6841	*8473 *8419 *8365 *8309 *8253	".7253 ".7321 ".7388 ".7454 ".7518	".7972 ".8068 ".8164 ".8258	11*9280 11*9253 11*9224 11*9196 11*9166

					p		
Degree.	Radian.	Sine.	Tangent.	Cosine.	1	Logarithms o	r
Degree.	Tudian.		Tangent.	Costne.	Sine.	Tangent.	Cosine.
34·38	·60	•5646	0.6841	*8253	1.7518	1.8351	1°9166
34·95	·61	•5729	0.6989	*8196	1.7581	1.8444	1°9136
35·52	·62	•5810	0.7139	*8139	1.7642	1.8536	1°9106
36·10	·63	•5891	0.7291	*8080	1.7702	1.8628	1°9074
36·67	·64	•5972	0.7445	*8021	1.7761	1.8719	1°9042
37·24	·65	•6052	0.7602	*7961	1.7819	1.8809	1°9010
37·82	·63	·6131	0.7761	•7900	".7875	11.8899	11*8976
38·39	·67	·6210	0.7923	•7838	".7931	11.8989	11*8942
38·96	·68	·6288	0.8087	•7776	".7985	11.9078	11*8907
- 39·53	·69	·6365	0.8253	•7712	".8038	11.9166	11*8872
40·11	·70	·6442	0.8423	•7648	".8090	11.9255	11*8836
40.68 41.25 41.83 42.40 42.97	·71 ·72 ·73 ·74 ·75	6518 6594 6669 6743 6816	0.8595 0.8771 0.8949 0.9131 0.9316	.7584 .7518 .7452 .7385 .7317	#*8141 #*8191 #*8240 #*8288	11*9343 11*9430 11*9518 11*9605 11*9692	11.8799 11.8761 11.8723 11.8683 11.8643
43:54	·76	·6889	0.9505	*7248	#8382	11.9779	11.8602
44:12	·77	·6)61	0.9697	*7179	#8427	11.9866	11.8561
44:69	·78	·7033	0.9893	*7109	#8471	11.9953	11.8518
45:26	·79	·7104	1.0092	*7038	#8515	0.0040	11.8475
45:84	·80	·7174	1.0296	*6967	#8557	0.0127	11.8430
46.41 46.93 47.56 48.13 48.70	·81 ·82 ·83 ·84 ·85	.7243 .7311 .7379 .7446 .7513	1.0505 1.0717 1.0934 1.1156 1.1383	·6895 ·6822 ·6749 ·6675 ·6600	#*8599 #*8640 #*8680 #*8720	0.0214 0.0301 0.0388 0.0475 0.0563	11*8385 11*8339 11*8292 11*8244 11*8195
49.27	•86	•7578	1·1616	·6524	11.8796	0.0650	11.8145
49.85	•87	•7643	1·1853	·6448	11.8833	0.0738	11.8094
50.42	•88	•7707	1·2097	·6372	11.8869	0.0827	11.8042
50.99	•89	•7771	1·2346	·6294	11.8905	0.0915	11.7989
51.57	•90	•7833	1·26J2	·6216	11.8939	0.1004	11.7935
52:14	•91	*7895	1·2864	· 6137	11.8974	0·1094	11:7880
52:71	•92	*7956	1·3133	· 6058	11.9007	0·1184	11:7823
53:29	•93	*8016	1·3409	· 5:078	11.9040	0·1274	11:7766
53:86	•94	*8076	1·3692	· 5898	11.9072	0·1365	11:7707
54:43	•95	*8134	1·3984	· 5817	11.9103	C·1456	11:7647
55.00	*96	*8192	1:4284	*5735	11.9134	0·1548	11.7585
55.58	*37	*8249	1:4592	*5653	11.9164	0·1641	11.7523
56.15	*93	*8305	1:4909	*5570	11.9193	0·1735	11.7459
56.72	*99	*8360	1:5237	*5487	11.9222	0·1829	11.7393
57.30	1*00	*8415	1:5574	*5403	11.9250	0·1924	11.7326
57.87	1.01	*8468	1.5922	•5319	11.9278	0·2020	11.7258
58.44	1.02	*8521	1.6281	•5234	11.9305	0·2117	11.7188
59.01	1.03	*8573	1.6653	•5148	11.9331	0·2215	11.7117
59.59	1.04	*8624	1.7036	•5062	11.9357	0·2314	11.7043
60.16	1.05	*8674	1.7433	•4976	11.9382	0·2414	11.6969
60·73	1.06	*8724	1.7844	·4889	11.9407	0·2515	11 6892
61·31	1.07	*8772	1.8270	·4801	11.9431	0·2618	11 6814
61·88	1.08	*8820	1.8712	·4713	11.9454	0·2721	11 6733
62·45	1.09	*8866	1.9171	·4625	11.9477	0·2826	11 6651
63 03	1.10	*8912	1.9648	·4536	11.9500	0·2933	11 6567

D	n.v	6t		Claudina		Logarithms o	f
Degree.	Radian.	Sine.	Tangent.	Cosine.	Sine.	Tangent.	. Cosine.
63.03	1·10	*8912	1.965	*4536	1.9500	0·2933	1.6567
63.60	1·11	*8957	2.014	*4447	1.9522	0·3041	1.6480
64.17	1·12	*9001	2.066	*4357	1.9543	0·3151	1.6392
64.74	1·13	* 9044	2.120	*4267	1.9564	0·3263	1.6301
65.32	1·14	*9086	2.176	*4176	1.9584	0·3376	1.6208
65.89	1·15	*9128	2.234	*4085	1.9604	0·3492	1.6112
66:46 67:04 67:61 68:18 68:75	1·16 1·17 1·18 1·19 1·20	9168 9208 9246 9284 9320	2·296 2·360 2·427 2·498 2·572	·3993 ·3902 ·3809 ·3717 ·3624	11.9623 11.9641 11.9660 11.9677 11.9694	0·3609 0·3729 0·3851 0·3976 0·4103	"*6013 "*5912 "*5808 "*5701
69·33	1·21	*9356	2.650	*3530	11.9711	0.4233	แ*5478
69·90	1·22	*9391	2.733	*3436	11.9727	0.4366	แ*5361
70·47	1·23	*9425	2.820	*3342	11.9743	0.4502	แ*5241
71·05	1·24	*9458	2.912	*3248	11.9758	0.4642	แ*5116
71·62	1·25	*9490	3.010	*3153	11.9773	0.4785	แ*4958
72·19	1·26	*9521	3·113	*3058	11.9787	0·4932	".4855
72·77	1·27	*9551	3·224	*2963	11.9800	0·5083	".4717
73·34	1·28	*9580	3·341	*2867	11.9814	0·5239	".4575
73·91	1·29	*9608	3·467	*2771	11.9826	0·5400	".4427
74·48	1·30	*9636	3·602	*2675	11.9839	0·5566	".4273
75.06	1·31	*9662	3.747	•2579	11-9851	0·5737	11:4114
75.63	1·32	*9687	3.903	•2482	11-9862	0·5914	11:3948
76.20	1·33	*9712	4.072	•2385	11-9873	0·6098	11:3774
76.78	1·34	*9735	4.256	•2288	11-9883	0·6290	11:3594
77.35	1·35	*9757	4.455	•2190	11-9893	0·6489	11:3405
77.92	1·36	*9779	4.674	·2092	11*9903	0.6696	11·3206
78.50	1·37	*9799	4.913	·1995	11*9912	0.6914	11·2998
79.07	1·38	*9819	5.177	·1896	11*9920	0.7141	11·2779
79.64	1·39	*9837	5.471	·1798	11*9929	0.7380	11·2548
80.21	1·40	*9854	5.798	·1700	11*9936	0.7633	11·2304
80·79	1·41	*9871	6·165	1601	11.9944	0.7900	":2044
81·36	1·42	*9886	6·581	1502	11.9950	0.8183	":1767
81·93	1·43	*9901	7·055	1403	11.9957	0.8485	":1472
82·51	1·44	*9915	7·619	1304	11.9963	0.8819	":1154
83·08	1·45	*9927	8·238	1205	11.9968	0.9158	":'0810
83.65	1.46	*9939	8 989	*1106	"*9973	0.9537	11-0436
84.23	1.47	*9949	9 887	*1006	"*9978	0.9951	11-0027
84.80	1.48	*9959	10 984	*0907	"*9982	1.0407	2-9575
85.37	1.49	*9967	12 350	*0807	"*9986	1.0917	11-9069
85.94	1.50	*9975	14 101	*0707	"*9989	1.1493	11-8497
86.52	1.51	*9982	16:428	*0608	11*9992	1·2156	"7836
87.09	1.52	*9987	19:670	*0508	11*9994	1·2938	"7056
87.66	1.53	*9992	24:499	*0408	11*9996	1·3891	"6105
88.24	1.54	*9995	33:138	*0302	11*9998	1·5203	"4795
88.81	1.55	*9998	48:101	*0208	11*9999	1·6821	"3178
89:38	1·56	*9999	92·623	*0108	0.0000	1.9667	0333
89:95	1·57	1*0000	1255·866	*0080	0.0000	3.0989	3.9011
90 :00	π/2	1*0000	∞	*0000	0.0000	+∞	-∞

n	n-1	n ²	n³	√n	√10n	3∕n	$\sqrt[3]{10n}$	Diff.	³ ∕100n
1	1	1	1	1	3·1623	1	2:1544	th the preced., this table of may be used lation.	4·6416
2	*5	4	8	1·4142	4·4721	1·2599	2:7144		5·8480
3	*333333	9	27	1·7321	5·4772	1·4422	3:1072		6·6943
4	*25	16	64	2	6·3246	1·5874	3:4200		7·3681
5	*2	25	125	2·2361	7·0711	1·7100	3:6840		7·9370
6 7 8 9 10	*166667 *142857 *125 *111111	36 49 64 81 1 00	216 343 512 729 1 000	2:4495 2:6458 2:8284 3 3:1623	7.7460 8.3666 8.9443 9.4868	1.8171 1.9129 2 2.0801 2.1544	3:9149 4:1213 4:3089 4:4814 4:6416	Along with the p ting column, this tage of differences may be for interpolation.	8:4343 8:8790 9:2832 9:6549
11	*090909	1 21	1 331	3·3166	10:488	2·2240	4·7914	1410	10·323
12	*083333	1 44	1 728	3·4641	10:954	2·2894	4·9324	1334	10·627
13	*076923	1 69	2 197	3·6056	11:402	2·3513	5·0658	1267	10·914
14	*071429	1 96	2 744	3·7417	11:832	2·4101	5·1925	1208	11·187
15	*066667	2 25	3 375	3·8730	12:247	2·4662	5·3133	1155	11·447
16	*0625	2 56	4 096	4	12.649	2·5198	5·4288	1109	11.696
17	*058824	2 89	4 913	4·1231	13.038	2·5713	5·5397	1065	11.935
18	*055556	3 24	5 832	4·2426	13.416	2·6207	5·6462	1027	12.164
19	*052632	3 61	6 859	4·3589	13.784	2·6684	5·7489	991	12.386
20	*05	4 00	8 000	4·4721	14.142	2·7144	5·8480	959	12.599
21 22 23 24 25	047619 045455 043478 041667	4 41 4 84 5 29 5 76 6 25	9 261 10 648 12 167 13 824 15 625	4.5826 4.6904 4.7958 4.8990 5	14:491 14:832 15:166 15:492 15:811	2·7589 2·8020 2·8439 2·8845 2·9240	5.9439 6.0368 6.1269 6.2145 6.2996	929 901 876 851 829	12:806 13:006 13:200 13:389 13:572
26	*038462	6 76	17 576	5·0990	16·125	2·9625	6:3825	808	13.751
27	*037037	7 29	19 683	5·1962	16·432	3	6:4633	788	13.925
28	*035714	7 84	21 952	5·2915	16·733	3·0366	6:5421	770	14.095
29	*034483	8 41	24 389	5·3852	17·029	3·0723	6:6191	752	14.260
30	*033333	9 00	27 000	5·4772	17·321	3·1072	6:6943	736	14.422
31	*032258	9 61	29 791	5.5678	17.607	3·1414	6.7679	720	14.581
32	*03125	10 24	32 768	5.6569	17.889	3·1748	6.8399	705	14.736
33	*030303	10 89	35 937	5.7446	18.166	3·2075	6.9104	691	14.888
34	*029412	11 56	39 304	5.8310	18.439	3·2396	6.9795	688	15.037
35	*028571	12 25	42 875	5.9161	18.708	3·2711	7.0473	665	15.183
36	*027778	12 96	46 656	6	18·974	3·3019	7:1138	653	15·326
37	*027027	13 69	50 653	6·0828	19·235	3·3322	7:1791	641	15·467
38	*026316	14 44	54 872	6·1644	19·494	3·3620	7:2432	629	15·605
39	*025641	15 21	59 319	6·2450	19·748	3·3912	7:3001	620	15·741
40	*025	16 00	64 000	6·3246	20	3·4200	7:3681	609	15·874
41	*024390	16 81	68 921	6:4031	20·248	3·4482	7·4290	599	16·005
42	*023810	17 64	74 088	6:4807	20·494	3·4760	7·4889	589	16·134
43	*023256	18 49	79 507	6:5574	20·736	3·5034	7·5478	581	16·261
44	*022727	19 36	85 184	6:6332	20·976	3·5303	7·6059	572	16·386
45	*022222	20 25	91 125	6:7082	21·213	3·5569	7·6631	563	16·510
46	*021739	21 16	97 336	6.7823	21·448	3·5830	7·7194	556	16.631
47	*021277	22 09	103 823	6.8557	21·679	3·6088	7·7750	547	16.751
48	*020833	23 04	110 592	6.9282	21·909	3·6342	7·8297	540	16.869
49	*020408	24 01	117 649	7	22·136	3·6593	7·8837	533	16.985
50	*02	25 00	125 000	7.0711	22·361	3·6840	7·9370	526	17.100

n	n-1	n ²	n³	√n	√10n	∛n	³ √10n	Diff.	³ √100n
51	*019608	26 01	132 651	7·1414	22·593	3·7084	7.9896	519	17·213
52	*019231	27 04	140 608	7·2111	22·804	3·7325	8.0415	512	17·325
53	*018868	28 09	148 877	7·2801	23·022	3·7563	8.0927	506	17·435
54	*018519	29 16	157 464	7·3485	23·238	3·7798	8.1433	499	17·544
55	*018182	30 25	166 375	7·4162	23·452	3·8030	8.1932	494	17·652
56	·017857	31 36	175 616	7·4833	23.664	3·8259	8·2426	487	17.758
57	·017544	32 49	185 193	7·5498	23.875	3·8485	8·2913	483	17.863
58	·017241	33 64	195 112	7·6158	24.083	3·8709	8·3396	476	17.967
59	·016949	34 81	205 379	7·6811	24.290	3·8930	8·3872	471	18.070
60	·016667	36 00	216 000	7·7460	24.495	3·9149	8·4343	466	18.171
61	*016393	37 21	226 981	7·8102	24.698	3·9365	8:4809	461	18:272
62	*016129	38 44	238 328	7·8740	24.900	3·9579	8:5270	456	18:371
63	*015873	39 69	250 047	7·9373	25.100	3·9791	8:5726	451	18:469
64	*015625	40 96	262 144	8	25.298	4	8:6177	447	18:566
65	*015385	42 25	274 625	8·0623	25.495	4·0207	8:6624	442	18:663
66	*015152	43 56	287 496	8·1240	25.690	4.0412	8·7066	437	18.758
67	*014925	44 89	300 763	8·1854	25.884	4.0615	8·7503	434	18.852
68	*014706	46 24	314 432	8·2462	26.077	4.0817	8·7937	429	18.945
69	*014493	47 61	328 509	8·3066	26.268	4.1016	8·8366	424	19.038
70	*014286	49 00	343 000	8·3666	26.458	4.1213	8·8790	421	19.129
71	*014085	50 41	357 911	8:4261	26.646	4·1408	8·9211	417	19:220
72	*013889	51 84	373 248	8:4853	26.833	4·1602	8·9628	413	19:310
73	*013699	53 29	389 017	8:5440	27.019	4·1793	9·0041	409	19:399
74	*013514	54 76	405 224	8:6023	27.203	4·1983	9·0450	406	19:487
75	*013333	56 25	421 875	8:6603	27.386	4·2172	9·0856	402	19:574
76	*013158	57 76	438 976	8:7178	27:568	4·2358	9·1258	399	19:661
77	*012987	59 29	456 533	8:7750	27:749	4·2543	9·1657	395	19:747
78	*012821	60 84	474 552	8:8318	27:928	4·2727	9·2052	391	19:832
79	*012658	62 41	493 039	8:8882	28:107	4·2908	9·2443	389	19:916
80	*0125	64 00	512 000	8:9443	28:284	4·3089	9·2832	385	20
81	012346	65 61	531 441	9	28:460	4·3267	9:3217	382	20·083
82	•012195	67 24	551 368	9·0554	28:636	4·3445	9:3599	379	20·165
83	•012048	68 89	571 787	9·1104	28:810	4·3621	9:3578	376	20·247
84	•011905	70 56	592 704	9·1652	28:983	4·3795	9:4354	373	20·328
85	•011765	72 25	614 125	9·2195	29:155	4·3968	9:4727	370	20·408
86	*011628	73 96	636 056	9·2736	29·326	4:4140	9·5097	367	20:488
87	*011494	75 69	658 503	9·3274	29·496	4:4310	9·5464	364	20:567
88	*011364	77 44	681 472	9·3808	29·665	4:4480	9·5828	362	20:646
89	*011236	79 21	704 969	9·4340	29·833	4:4647	9·6190	359	20:724
90	*011111	81 00	729 000	9·4868	30	4:4814	9·6549	357	20:801
91	*010989	82 81	753 571	9·5394	30·166	4·4979	9.6905	354	20.878
92	*010870	84 64	778 688	9·5917	30·332	4·5144	9.7259	351	20.9 54
93	*010753	86 49	804 357	9·6437	30·496	4·5307	9.7610	349	21.029
94	*010638	88 36	830 584	9·6954	30·659	4·5468	9.7959	346	21.105
95	*010526	90 25	857 375	9·7468	30·822	4·5629	9.8305	343	21.179
96 97 98 99 100	*010417 *010309 *010204 *010101 *01	92 16 94 09 96 04 98 01 100 00	884 736 912 673 941 192 970 299 1000 000	9.7980 9.8489 9.8995 9.9499	30·984 31·145 31·305 31·464 31·623	4.5789 4.5947 4.6104 4.6261 4.6416	9.8648 9.8990 9.9329 9.9666 10	342 339 337 334	21·253 21·327 21·400 21·472 21·544

The reciprocals are given to the first four figures, no account being taken of 'place-value.'

Number.	0	1	2	3	4	5	6	7	8	9		M				ence	es to	o b	е
Nun		Ŀ									1	2	3	4	5	6	7	8	9
10 11 12 13 14 15	1000 9091 8333 7692 7143 6667	9901 9009 8264 7634 7092 6623	9804 8929 8197 7576 7042 6579	9709 8850 8130 7519 6993 6536	9615 8772 8065 7463 6944 6494	9524 8696 8000 7407 6897 6452	9434 8621 7937 7353 6849 6410	9346 8547 7874 7299 6803 6369	9259 8475 7813 7246 6757 6329	9174 8403 7752 7194 6711 6289		18 15 13 11 10 8	27 23 19 16 14 13	30 26 22 19	45 38 32 27 24 21	55 45 38 33 29 25	53 45 38 33	73 61 51 44 38 33	68 58 49 43
16 17 18 19 20	6250 5882 5556 5263 5000	6211 5848 5525 5236 4975	6173 5814 5495 5208 4950	6135 5780 5464 5181 4926	6098 5747 5435 5155 4902	6061 5714 5405 5128 4878	6024 5682 5376 5102 4854	5988 5650 5348 5076 4831	5952 5618 5319 5051 4808	5917 5587 5291 5025 4785	4 3 3 2	7 7 6 5 5	11 10 9 8 7	13 12 11	18 16 15 13 12	20 18 16	26 23 21 18 17	29 26 23 21 19	26 24
21 22 23 24 25	4762 4545 4348 4167 4000	4739 4525 4329 4149 3984	4717 4505 4310 4132 3968	4695 4484 4292 4115 3953	4673 4464 4274 4098 3937	4651 4444 4255 4082 3922	4630 4425 4237 4065 3906	4608 4405 4219 4049 3891	4587 4386 4202 4032 3876	4566 4367 4184 4016 3861	2 2 2 2 2 2	4 4 3 3	7 6 5 5 5	9 8 7 7 6	11 10 9 8 8	13 12 11 10 9	15 14 13 12 11	14 13	
26 27 28 29 30	3846 3704 3571 3448 3333	3831 3690 3559 3436 3322	3817 3676 3546 3425 3311	3802 3663 3534 3413 3300	3788 3650 3521 3401 3289	3774 3636 3509 3390 3279	3759 3623 3497 3378 3268	3745 3610 3484 3367 3257	3731 3597 3472 3356 3247	3717 3584 3460 .3344 3236	1 1 1 1	3 2 2 2	4 4 3 3	6 5 5 5 4	7 7 6 6 5	9 8 7 7 6	10 9 9 8 7	11 11 10 9 9	13 12 11 10 10
31 32 33 34 35	3226 3125 3030 2941 2857	3215 3115 3021 2933 2849	3205 3106 3012 2924 2841	3195 3096 3003 2915 2833	3185 3086 2994 2907 2825	3175 3077 2985 2899 2817	3165 3067 2976 2890 2809	3155 3058 2967 2882 2801	3145 3049 2959 2874 2793	3135 3040 2950 2865 2786	1 1 1 1	2 2 2 2 2	3 3 3 2	4 4 3 3	5 4 4 4	6 5 5 5	7 7 6 6 6	8 7 7 6	9 9 8 8 7
36 37 38 39 40	2778 2703 2632 2564 2500	2770 2695 2625 2558 2494	2762 2688 2618 2551 2488	2755 2681 2611 2545 2481	2747 2674 2604 2538 2475	2740 2667 2597 2532 2469	2732 2660 2591 2525 2463	2725 2653 2584 2519 2457	2717 2646 2577 2513 2451	2710 2639 2571 2506 2445	1 1 1 1	2 1 1 1	2 2 2 2 2	3 3 3 2	4 4 3 3 3	5 4 4 4	5 5 4 4	6 5 5 5	7 6 6 6 5
41 42 43 44 45	2439 2381 2326 2273 2222	2433 2375 2320 2268 2217	2427 2370 2315 2262 2212	2421 2364 2309 2257 2208	2415 2358 2304 2252 2203	2410 2353 2299 2247 2198	2404 2347 2294 2242 2193	2398 2342 2288 2237 2188	2392 2336 2283 2232 2183	2387 2331 2278 2227 2179	1 1 1 1 0	1 1 1 1	2 2 2 2 1	2 2 2 2 2	3 3 3 2	3 3 3 3 3	4 4 4 3	5 4 4 4 4	5 5 5 4
46 47 48 49 50	2174 2128 2083 2041 2000	2169 2123 2079 2037 1996	2165 2119 2075 2033 1992	2160 2114 2070 2028 1988	2155 2110 2066 2024 1984	2151 2105 2062 2020 1980	2146 2101 2058 2016 1976	2141 2096 2053 2012 1972	2137 2092 2049 2008 1969	2132 2088 2045 2004 1965	0 0 0 0	1 1 1 1	1 1 1 1 1	2 2 2 2 2 2	2 2 2 2 2	3 3 2 2	3 3 3 3	4 3 3 3	4 4 4
51 52 53 54 55	1961 1923 1887 1852 1818	1957 1919 1883 1848 1815	1953 1916 1880 1845 1812	1949 1912 1876 1842 1808	1946 1908 1873 1838 1805	1942 1905 1869 1835 1802	1938 1901 1866 1832 1799	1934 1898 1862 1828 1795	1931 1894 1859 1825 1792	1927 1890 1855 1821 1789	0 0 0 0	1 1 1 1 1	1 1 1 1	2 1 1 1 1	2 2 2 2 2	2 2 2 2 2	3 2 2 2	3 3 3 3	3 3 3 3
56 57 58 59 60	1786 1754 1724 1695 1667	1783 1751 1721 1692 1664	1779 1748 1718 1689 1661	1776 1745 1715 1686 1658	1773 1742 1712 1684 1656	1770 1739 1709 1681 1653	1767 1736 1706 1678 1650	1764 1733 1704 1675 1647	1761 1730 1701 1672 1645	1757 1727 1698 1669 1642	0 0 0 0	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	$\begin{array}{c}2\\2\\1\\1\\1\end{array}$	2 2 2 2 2	2 2 2 2 2	3 2 2 2 2	3 3 3 2

The reciprocals are given to the first four figures, no account being taken of 'place-value.'

er.	1					1-8						Pr	ime N	os, fron	101 to	2011.
Number.	0	1	2	3	4	5	6	7	8	9	Diff.	101 103 107 109	421 431 433 439	787 797 809 811	1181 1187 1193 1201	1583 1597 1601 1607
						7.050			1015	1010	١.	113	443	821	1213	1609
60 61	1667 1639	1664 1637	1661 1634	1658 1631	1656 1629	1653 1626	1650 1623	1647 1621	1645 1618	1642 1616	3	127 131	449 457	823 827	$\frac{1217}{1223}$	$\frac{1613}{1619}$
62	1613	1610	1608	1605	1603	1600	1597	1595	1592	1590	3	137	461	829	1229	1621
63	1587	1585 1560	1582	1580	1577	1575 1550	1572	1570	1567 1543	1565 1541	3	139	463	839	$1231 \\ 1237$	1627
64 65	1563 1538	1536	1558 1534	1555 1531	1553 1529	1527	1548 1524	1546 1522	1520	1517	2	149 151	467 479	853 85 7	1249	1637 165 7
66	1515	1513	1511	1508	1506	1504	1502	1499	1497	1495	2	157	487	859	1259	1663
67	1493	1490	1488	1486	1484	1481	1479	1477	1475	1473 1451	2 2	163	491	863	$\frac{1277}{1279}$	1667
68 69	$1471 \\ 1449$	1468	1466 1445	1464 1443	1462 1441	1460 1439	1458 1437	1456 1435	1453 1433	1431	2	167 173	499 503	877 881	1283	1669 1693
70	1429	1427	1425	1422	1420	1418	1416	1414	1412	1410	2	179	509	883	1289	1697
71	1408	1466 1387	1404 1385	1403	1401	1399 1379	1397 1377	1395	1393 1374	1391 1372	2	181	521	887 907	$1291 \\ 1297$	1699 1709
72 73	1389 1370	1368	1366	1383 1364	1381 1362	1379	1377	1376 1357	1355	1353	2 2	191 193	523 541	911	1301	$1709 \\ 1721$
74	1351	1350	1348	1346	1344	1342	1340	1339	1337	1335	2	197	547	919	1503	1723
75	1333	1332	1330	1328	1326	1325	1323	1321	1319	1318	2	199	557	919	1307	1733
76	1316	1314 1297	1312 1295	1311	1309	1307	1305	1304	1302	1300 1284	2	211	563	937	1319	1741
77 78	$\frac{1299}{1282}$	1280	1279	1294 1277	$1292 \\ 1276$	1290 1274	1289 1272	1287 1271	1285 1269	1267	2 2	223 227	$\frac{569}{571}$	941 947	$\frac{1321}{1327}$	$1747 \\ 1753$
79	1266	1264	1263	1261	1259	1258	1256	1255	1253	1252	2	229	577	953	1361	1759
80	1250	1248	1247	1245	1244	1242	1241	1239	1238	1236	2	233	587	967	1367	1777
81 82	$1235 \\ 1220$	1233 1218	$1232 \\ 1217$	$1230 \\ 1215$	1229 1214	1227 1212	1225 1211	1224 1209	1222 1208	1221 1206	2 2	$\frac{239}{241}$	593 599	$971 \\ 977$	$1373 \\ 1381$	1783 1787
83	1205	1203	1202	1200	1199	1198	1196	1195	1193	1192	í	251	6∪1	983	1399	1789
84	1190	1189	1188	1186	1185	1183	1182	1181	1179	1178	1	257	607	991	1409	1801
85	1176	1175	1174	1172	1171	1170	1168	1167	1166	1164	1	263	613	997	1423	1811
86	1163 1149	1161 1148	1160 1147	1159 1145	1157 1144	1156 1143	1155 1142	1153 1140	1152 1139	1151 1138	1	$\frac{269}{271}$	$617 \\ 619$	$\frac{1009}{1013}$	$1427 \\ 1429$	$\frac{1823}{1831}$
88	1136	1135	1134	1133	1131	1130	1129	1127	1126	1125	i	277	631	1019	1433	1847
89	1124	1122	1121	1120	1119	1117	1116	1115	1114	1112	1	281	641	1021	1439	1861
90	1111	1110	1109	1107	1106	1105	1104	1103	1101	1100	1	283	643	1031	1447	1867
91 92	1099 1087	1098 1086	1096 1085	1095 1083	1094	1093 1081	1092 1080	1091 1079	1089 1078	1088 1076	1	293 307	$647 \\ 653$	1033 1039	$\frac{1451}{1453}$	1871
93	1075	1074	1073	1083	1082 1071	1070	1068	1079	1066	1065	i	311	659	1049	1459	$1873 \\ 1877$
94	1064	1063	1062	1060	1059	1058	1057	1056	1055	1054	1	313	661	1051	1471	1879
95	1053	1052	1050	1049	1048	1047	1046	1045	1044	1043	1	317	673	1061	1481	1889
96 97	1042	1041 1030	1040 1029	1038 1028	1037 1027	1036 1026	1035 1025	1034 1024	1033 1022	1032 1021	1	$\frac{331}{337}$	677	$\frac{1063}{1069}$	$\frac{1483}{1487}$	1901 1907
98	$1031 \\ 1020$	1019	1029	1028	1027	1026	1025	1013	1012	1011	i	347	683 691	1087	1487	1913
99	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1	349	701	1091	1493	1931
100	1000	9990	9980	9970	9960	9950	9940	9930	9921	9911	10	353	709	1093	1499	1933
101 102	9901 9804	98 91 97 94	9881 9785	9872 9775	9862 9766	9852 9756	9843 9747	98 33 9737	9823 9728	9814 9718	10 10	359 367	$\frac{719}{727}$	$\begin{array}{c} 1097 \\ 1103 \end{array}$	1511 1523	1949 1951
103	9709	9699	9690	9681	9671	9662	9653	9643	9634	9625	9	373	733	1109	1531	1973
	9615 9524	9606 9515	9597 9506	9588 9497	9671 9579 9488	9569 9479	$9560 \\ 9470$	9551 9461	9542 9452	9533 9443	9	379 383	739 743	$\frac{1117}{1123}$	$1543 \\ 1549$	$1979 \\ 1987$
		9425	9416	9407	9398	9390	9381	9372	9363	9355	1	389			1553	
106	9434 9346	9337	9328	9320	9398	9390	9381	9372	9303	9355	9	389 397	751 757	$\frac{1129}{1151}$	1559	1993 1997
108	9259	9251	9242	9234	9225	9217	9208	9200	9191	9183	9	401	761	1153	1567	1999
109	9174 9091	9166 9083	9158 9074	9149 9066	9141 9058	9132 9050	9124 9042	9116 9033	9107 9025	9099 9017	8	409 419	$\frac{769}{773}$	1163 1171	1571 1579	2003 2011
. 10	0031	0000	0014	2000	0000	2000	8042	0000	3023	3017	0	410	110	1111	1019	2011

The squares are given to the first four figures, no account being taken of 'place-value.'

ber.													Mea	ւո 1	Diff	erei	ices	·	
Number.	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
10 11 12 13 14 15	1000 1210 1440 1690 1960 2250	1020 1232 1464 1716 1988 2280	1040 1254 1488 1742 2016 2310	1061 1277 1513 1769 2045 2341	1082 1300 1538 1796 2074 2372	1103 1323 1563 1823 2103 2403	1124 1346 1588 1850 2132 2434	1145 1369 1613 1877 2161 2465	1166 1392 1638 1904 2190 2496	1188 1416 1664 1932 2220 2528	2 3 3 3 3	4 5 5 6 6	6 7 8 8 9 9	9 10 11 12	13	14 15 16 17	16 18 19 20	17 18 20 22 23 25	21 23 24 26
16 17 18 19 20	2560 2890 3240 3610 4000	2592 2924 3276 3648 4040	2624 2958 3312 3686 4080	2657 2993 3349 3725 4121	2690 3028 3386 3764 4162	2723 3063 3423 3803 4203	2756 3098 3460 3842 4244	2789 3133 3497 3881 4285	2822 3168 3534 3920 4326	2856 3204 3572 3960 4368	3 4 4 4 4	7 8	10 11 11 12 12	14 15 16	17 18 19 20 21	21 22 23	25 26 27	26 28 30 31 33	3:
21 22 23 24 25	4410 4840 5290 5760 6250	4452 4884 5336 5808 6300	4494 4928 5382 5856 6350	4537 4973 5429 5905 6401	4580 5018 5476 5954 6452	4623 5063 5523 6003 6503	4666 5108 5570 6052 6554	4709 5153 5617 6101 6605	4752 5198 5664 6150 6656	4796 5244 5712 6200 6708		9		18 19 20	22 23 24 25 26	27 28 29	32 33 34	34 36 38 39 41	4:
26 27 28 29 30	6760 7290 7840 8410 9000	6812 7344 7896 8468 9060	6864 7398 7952 8526 9120	6917 7453 8009 8585 9181	6970 7508 8066 8644 9242	7023 7563 8123 8703 93 0 3	7076 7618 8180 8762 9364	7129 7673 8237 8821 9425	7182 7728 8294 8880 9486	7236 7784 8352 8940 9548	6 6	11 11 11 12 12	17 17 18	24		33 34 35	39 40 41	42 44 46 47 49	50 51 53
31 31 32 33 34 35	9610 1024 1089 1156 1225	9672 1030 1096 1163 1232	9734 1037 1102 1170 1239	9797 1043 1109 1176 1246	9860 1050 1116 1183 1253	9923 1056 1122 1190 1260	9986 1063 1129 1197 1267	1005 1069 1136 1204 1274	1011 1076 1142 1211 1282	1018 1082 1149 1218 1289	6 1 1 1 1	13 1 1 1 1 1	19 2 2 2 2 2	25 3 3 3 3	32 3 3 3 4	38 4 4 4 4	44 4 5 5 5 5	50 5 5 5 6 6	56
36 37 38 39 40	1296 1369 1444 1521 1600	1303 1376 1452 1529 1608	1310 1384 1459 1537 1616	1318 1391 1467 1544 1624	1325 1399 1475 1552 1632	1332 1406 1482 1560 1640	1340 1414 1490 1568 1648	1347 1421 1498 1576 1656	1354 1429 1505 1584 1665	1362 1436 1513 1592 1673	1 1 1 1	1 2 2 2 2 2	2 2 2 2 2	3 3 3 3	4 4 4 4	4 5 5 5 5	5 5 6 6	6 6 6 6	
41 42 43 44 45	1681 1764 1849 1936 2025	1689 1772 1858 1945 2034	1697 1781 1866 1954 2043	1706 1789 1875 1962 2052	1714 1798 1884 1971 2061	1722 1806 1892 1980 2070	1731 1815 1901 1989 2079	1739 1823 1910 1998 2088	1747 1832 1918 2007 2098	1756 1840 1927 2016 2107	1 1 1 1	2 2 2 2 2	2 3 3 3 3	3 3 4 4	4 4 4 5	5 5 5 5 5	6 6 6 6	7 7 7 7	
46 47 48 49 50	2116 2209 2304 2401 2500	2125 2218 2314 2411 2510	2134 2228 2323 2421 2520	2144 2237 2333 2430 2530	2153 2247 2343 2440 2540	2162 2256 2352 2450 2550	2172 2266 2362 2460 2560	2181 2275 2372 2470 2570	2190 2285 2381 2480 2581	2200 2294 2391 2490 2591	1 1 1 1		3 3 3 3	4 4 4 4	5 5 5 5 5	6	7 7 7 7 7	788888	
51 52 53 54 55	2601 2704 2809 2916 3025	2611 2714 2820 2927 3036	2621 2725 2830 2938 3047	2632 2735 2841 2948 3058	2642 2746 2852 2959 3069	2652 2756 2862 2970 3080	2663 2767 2873 2981 3091	2673 2777 2884 2992 3102	2683 2788 2894 3003 3114	2694 2798 2905 3014 3125	1 1 1 1 1	$\frac{2}{2}$	3	4 4 4 4 4	5 5 5	6 6 7	7777888	9	1

The squares are given to the first four figures, no account being taken of 'place-value.'

Der.	Mean Difference							s.											
Number.	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
55 56 57 58 59 60	3025 3136 3249 3364 3481 3600	3036 3147 3260 3376 3493 3612	3047 3158 3272 3387 3505 3624	3058 3170 3283 3399 3516 3636	3069 3181 3295 3411 3528 3648	3080 3192 3306 3422 3540 3660	3091 3204 3318 3434 3552 3672	3102 3215 3329 3446 3564 3684	3114 3226 3341 3457 3576 3697	3125 3238 3352 3469 3588 3709	1 1 1 1 1 1	2 2 2 2 2 2 2	3 3 4 4 4	4 5 5 5 5 5	6 6 6 6 6	7 7 7 7 7	8 8 8 8 8	9 9 10	10
61 62 63 64 65	3721 3844 3969 4096 4225	3733 3856 3982 4109 4238	3745 3869 3994 4122 4251	3758 3881 4007 4134 4264	3770 3894 4020 4147 4277	3782 3906 4032 4160 4290	3795 3919 4045 4173 4303	3807 3931 4058 4186 4316	3819° 3944 4070 4199 4330	3832 3956 4083 4212 4343	1 1 1 1	2 3 3 3 3	4 4 4 4	5 5 5 5 5	6 6 6 7	7 8 8 8 8	9 9	10 10 10	11 11 11 12 12
66 67 68 69 70	4356 4489 4624 4761 4900	4369 4502 4638 4775 4914	4382 4516 4651 4789 4928	4396 4529 4665 4802 4942	4409 4543 4679 4816 4956	4422 4556 4692 4830 4970	4436 4570 4706 4844 4984	4449 4583 4720 4858 4998	4462 4597 4733 4872 5013	4476 4610 4747 4886 5 0 27	1 1 1 1	3 3 3 3	4 4 4 4	5 5 6 6	7 7 7 7	8 8 8 8	9 9 10 10 10	11 11 11	12 12 12 13 13
71 72 73 74 75	5041 5184 5329 5476 5625	5055 5198 5344 5491 5640	5069 5213 5358 5506 5655	5084 5227 5373 5520 5670	5098 5242 5388 5535 5685	5112 5256 5402 5550 5700	5127 5271 5417 5565 5715	5141 5285 5432 5580 5730	5155 5300 5446 5595 5746	5170 5314 5461 5610 5761	1 1 1 1 2	3 3 3 3	4 4 4 5	6 6 6 6	7 7 7 7 8	9 9 9 9	10 10 10		13
76 77 78 79 80	5776 5929 6084 6241 6400	5791 5944 6100 6257 6416	5806 5960 6115 6273 6432	5822 5975 6131 6288 6448	5837 5991 6147 6304 6464	5852 6006 6162 6320 6480	5868 6022 6178 6336 6496	5883 6037 6194 6352 6512	5898 6053 6209 6368 6529	5914 6068 6225 6384 6545	2 2 2 2 2	3 3 3 3	5 5 5 5 5	6 6 6 6		9 9 9 10 10	11 11 11	12 12 13 13 13	14 14 14
81 82 83 84 85	6561 6724 6889 7056 7225	6577 6740 6906 7073 7242	6593 6757 6922 7090 7259	6610 6773 6939 7106 7276	6626 6790 6956 7123 7293	6642 6806 6972 7140 7310	6659 6823 6989 7157 7327	6675 6839 7006 7174 7344	6691 6856 7022 7191 7362	6708 6872 7039 7208 7379	2 2 2 2 2	3 3 3 3	5 5 5 5 5	7 7 7 7 7		10 10 10	12 12 12	13 13 13 14 14	15 15 15
86 87 88 89 90	7396 7569 7744 7921 8100	7413 7586 7762 7939 8118	7430 7604 7779 7957 8136	7448 7621 7797 7974 8154	7465 7639 7815 7992 8172	7482 7656 7832 8010 8190	7500 7674 7850 8028 8208	7517 7691 7868 8046 8226	7534 7709 7885 8064 8245	7552 7726 7903 8082 8263	2 2 2 2 2	3 4 4 4 4	5 5 5 5 5 5	7 7 7 7	9 9 9 9	11 11	12	$\frac{14}{14}$	16 16 16
91 92 93 94 95	8281 8464 8649 8836 9 0 25	8299 8482 8668 8855 9044	8317 8501 8686 8874 9063	8336 8519 8705 8892 9082	8354 8538 8724 8911 9101	8372 8556 8742 8930 9120	8391 8575 8761 8949 9139	8409 8593 8780 8968 9158	8427 8612 8798 8987 9178	8446 8630 8817 9006 9197	2 2 2 2 2	4 4 4 4	5 6 6 6 6	7 7 7 8 8	9	11 11 11	$\frac{13}{13}$	15 15	17 17
96 97 98 99	9216 9409 9604 9801	9235 9428 9624 9821	9254 9448 9643 9841	9274 9467 9663 9860	9293 9487 9683 9880	9312 9506 9702 9900	9332 9526 9722 9920	9351 9545 9742 9940	9370 9565 9761 9960	9390 9584 9781 9980	2 2 2 2	4 4 4	6 6 6	8 :	10 10 10	12 12	14 14 14 14	$\frac{16}{16}$	18 18

The cubes are given to the first four figures, no account being taken of 'place-value.'

ber.							6	7					Me	an l	Diff	`ere	nce	š.	
Number.	0	1	2	3	4	5			8	9	1	2	3	4	5	6	7	8	9
10 11 12 13 14 15	1000 1331 1728 2197 2744 3375	1030 1368 1772 2248 2803 3443	1061 1405 1816 2300 2863 3512	1093 1443 1861 2353 2924 3582	1125 1482 1907 2406 2986 3652	1158 1521 1953 2460 3049 3724	1191 1561 2000 2515 3112 3796	1225 1602 2048 2571 3177 3870	1260 1643 2097 2628 3242 3944	1295 1685 2147 2686 3308 4020	3 4 5 5 6 7	7 8 9 11 13 14	10 12 14 16 19 22	16 19 22	17 20 23 27 32 36	20 24 28 33 38 43	23 28 33 38 44 50	26 32 38 44 50 58	30 36 42 49 57 65
16 17 18 19 20	4096 4913 5832 6859 8000	4173 5000 5930 6968 8121	4252 5088 6029 7078 8242	4331 5178 6128 7189 8365	4411 5268 6230 7301 8490	4492 5359 6332 7415 8615	4574 5452 6435 7530 8742	4657 5545 6539 7645 8870	4742 5640 6645 7762 8999	4827 5735 6751 7881 9129	9 10	16 18 20 23 25	25 28 31 34 38	37 41 46	52	49 55 62 68 76	57 64 72 80 88	65 74 82 91 101	74 83 92 103 113
21 21 22 23 24 25	9261 1065 1217 1382 1563	9394 1079 1233 1400 1581	9528 1094 1219 1417 1600	9664 1109 1265 1435 1619	9800 1124 1281 1453 1639	9938 1139 1298 1471 1658	1008 1154 1314 1489 1678	1022 1170 1331 1507 1697	1036 1185 1348 1525 1717	1050 1201 1365 1544 1737	14 1 2 2 2 2 2	27 3 3 4 4	41 5 5 5 5 6	54 6 6 7 7 8	68 7 8 8 9	82 9 10 11 12	95 10 11 12 13 14	109 12 12 13 14 16	122 13 14 15 16 18
26 27 28 29 30	1758 1968 2195 2439 2700	1778 1990 2219 2464 2727	1798 2012 2243 2490 2754	1819 2035 2267 2515 2782	1840 2057 2291 2541 2809	1861 2080 2315 2567 2837	1882 2102 2339 2593 2865	1903 2125 2364 2620 2893	1925 2148 2389 2646 2922	1947 2172 2414 2673 2950	2 2 2 3 3	4 5 5 5 6	6 7 7 8 8	9 10 10	11 11 12 13 14	14 15	15 16 17 18 20	17 18 20 21 22	19 20 22 23 25
31 32 33 34 35	2979 3277 3594 3930 4288	3008 3308 3626 3965 4324	3037 3339 3659 4000 4361	3066 3370 3693 4035 4399	3096 3401 3726 4071 4436	3126 3433 3760 4106 4474	3155 3465 3793 4142 4512	3186 3497 3827 4178 4550	3216 3529 3861 4214 4588	3246 3561 3896 4251 4627	3 3 4 4	6 6 7 7 8	9 10 10 11 11	13 13 14	15 16 17 18 19	19 20 21	21 22 24 25 26	24 25 27 29 30	27 29 30 32 34
36 37 38 39 40	4666 5065 5487 5932 6400	4705 5106 5531 5978 6448	4744 5148 5574 6024 6496	4783 5190 5618 6070 6545	4823 5231 5662 6116 6594	4863 5273 5707 6163 6643	4903 5316 5751 6210 6692	4943 5358 5796 6257 6742	4984 5401 5841 6304 6792	5024 5444 5886 6352 6842	4 4 4 5 5	8 9 9 10	13 13 14	16 17 18 19 20	22 23	25 27 28	28 30 31 33 34	32 34 36 37 39	38 40 42
41 42 43 44 45	6892 7409 7951 8518 9113	6943 7462 8906 8577 9173	6993 7515 8062 8635 9235	7044 7569 8118 8694 9296	7096 7623 8175 8753 9358	7147 7677 8231 8812 9420	7199 7731 8288 8872 9482	7251 7785 8345 8931 9544	7303 7840 8403 8992 9607	7356 7895 8460 9052 9670	5 5 6 6	$\frac{11}{12}$	16 17 18	22 23	28 30	33 34	36 38 40 42 43	45 48	51 54
46 46 47 48 49 50	9734 1038 1106 1176 1250	9797 1045 1113 1184 1258	9861 1052 1120 1191 1265	9925 1058 1127 1198 1273	9990 1065 1134 1206 1280	1005 1072 1141 1213 1288	1012 1079 1148 1220 1296	1018 1085 1155 1228 1303	1025 1092 1162 1235 1311	1032 1099 1169 1243 1319	6 1 1 1 1 1	13 1 1 1 1 1 2	2 2 2 2	26 3 3 3 3 3	3 4 4	4 4 4 4	45 5 5 5 5 5	51 5 6 6	6 6 7
51 52 53 54 55	1327 1406 1489 1575 1664	1334 1414 1497 1583 1673	1342 1422 1506 1592 1682	1350 1431 1514 1601 1691	1358 1439 1523 1610 1700	1366 1447 1531 1619 1710	1374 1455 1540 1628 1719	1382 1464 1549 1637 1728	1390 1472 1557 1646 1737	1398 1480 1566 1655 1747	1 1 1 1 1 1	2 2 2 2 2 2	3 3	3 3 3 4 4	4	5	6 6 6 6	7 7 7	8 8

The cubes are given to the first four figures, no account being taken of 'place-value.'

	1	I	T	1	1	T	T	i	1	1	T				<u>.</u>	acc			
ber.		١.			١.	_	_	١.					Me	ean	Dif	fere	ence	s.	
Number.	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
55 56 57 58 59 60	1756 1852 1951 2054	1766 1862 1961 2064	1775 1871 1971 2075	1691 1785 1881 1982 2085 2193		1710 1804 1901 2002 2106 2214	1719 1813 1911 2012 2117 2225	1728 1823 1921 2023 2128 2236	1737 1833 1931 2033 2138 2248	1747 1842 1941 2043 2149 2259	1 1 1 1 1	2 2 2 2 2 2	3 3 3 3 3	4 4 4 4 4 4	5 5 5 5 6	6 6 6	6 7 7 7 7 8	8 8 8	9 9 10
61 62 63 64 65	2270 2383 2500 2621 2746	2281 2395 2512 2634 2759	2292 2406 2524 2646 2772	2303 2418 2536 2658 2784	2315 2430 2548 2671 2797	2326 2441 2560 2683 2810	2337 2453 2573 2696 2823	2349 2465 2585 2708 2836	2360 2477 2597 2721 2849	2372 2489 2609 2734 2862	1 1 1 1	2 2 2 3 3	4 4 4	5 5 5 5 5	6 6 6 6	7 7 8 8	8 8 8 9	9 10	11 11
66 67 68 69 70	2875 3008 3144 3285 3430	2888 3021 3158 3299 3445	2901 3035 3172 3314 3459	2914 3048 3186 3328 3474	2928 3062 3200 3343 3489	2941 3075 3214 3357 3504	2954 3089 3228 3372 3519	2967 3103 3242 3386 3534	2981 3117 3257 3401 3549	2994 3130 3271 3415 3564	1 1 1 1	3 3 3 3	4 4 4 4	5 5 6 6 6	7 7 7 7	8 8 8 9 9	10 10	11 11 11 12 12	
71 72 73 74 75	3579 3732 3890 4052 4219	3594 3748 3906 4069 4236	3609 3764 3922 4085 4253	3625 3779 3938 4102 4270	3640 3795 3954 4118 4287	3655 3811 3971 4135 4304	3671 3827 3987 4152 4321	3686 3842 4003 4168 4338	3701 3858 4019 4185 4355	3717 3874 4036 4202 4372	2 2 2 2 2	3 3 3 3	5 5 5 5 5	6 6 7 7	7 8 8 8 9	9 9 10 10 10	11 11 12	12 13 13 13 14	14 14 15 15 15
76 77 78 79 80	4390 4565 4746 4930 5120	4407 4583 4764 4949 5139	4425 4601 4782 4968 5158	4442 4619 4800 4987 5178	4459 4637 4819 5006 5197	4477 4655 4837 5025 5217	4495 4673 4856 5044 5236	4512 4691 4874 5063 5256	4530 4709 4893 5082 5275	4548 4727 4912 5101 5295	2 2 2 2 2 2	4 4 4 4	5 6 6 6	7 7 7 8 8		11 11 11 11 11	13 13	14 14 15 15 16	16 17 17
81 82 83 84 85	5314 5514 5718 5927 6141	5334 5534 5739 5948 6163	5354 5554 5759 5969 6185	5374 5574 5780 5991 6207	5394 5595 5801 6012 6228	5413 5615 5822 6034 6250	5433 5636 5843 6055 6272	5453 5656 5864 6076 6294	5473 5677 5885 6098 6316	5494 5697 5906 6120 6338	2 2 2 2 2	4 4 4 4	6 6 6 7	8 8 9	10 10 10 11 11	12 13 13	14 15 15	16 16 17 17 18	18 19 19
86 87 88 89 90	6361 6585 6815 7050 .7290	6383 6608 6838 7073 7314	6405 6631 6861 7097 7339	6427 6653 6885 7121 7363	6450 6676 6908 7145 7388	6472 6699 6932 7169 7412	6495 6722 6955 7193 7437	6517 6745 6979 7217 7461	6540 6768 7002 7242 7486	6562 6792 7026 7266 7511	2 2 2 2 2	5 5 5 5 5	7 7 7 7	9 9 10	12	14 14 14	16	18 18 19 19 20	21 21 22
91 92 93 94 95	7536 7787 8044 8306 8574	7561 7812 8070 8332 8601	7586 7838 8096 8359 8628	7610 7863 8122 8386 8655	7636 7889 8148 8412 8683	7661 7915 8174 8439 8710	7686 7940 8200 8466 8737	7711 7966 8227 8493 8765	7736 7992 8253 8520 8792	7762 8018 8279 8547 8820	3 3 3 3	5 5 5 5	8 8 8 8	10 10 11		15 16 16	18 18 18 19 19		23 23 24 24 25
96 97 98 99	8847 9127 9412 9703	8875 9155 9441 9732	8903 9183 9470 9762	8931 9212 9499 9791	8958 9240 9528 9821	8986 9269 9557 9851	9014 9297 9586 9880	9042 9326 9615 9910	9070 9354 9644 9940	9099 9383 9674 9970	3 3 3	6 6 6	8 9 9		$\frac{14}{15}$	17 17	$\frac{20}{20}$	23	25 26 26 27

COMPOUND INTEREST TABLE,
Showing 'Amount' of £1, after from 1 to 50 years (or other equal periods), at

ъ.		1	1	ı	1 :	1	ı —	T	1
Year or Period.	1 %	1.5 %	2 %	2·5 °/.	3 %	3.5 %	4 %	4.5 °/.	5 %
1	1.01000	1.01500	1.02000	1.02500	1.03000	1.03500	1.04000	1:04500	1.05000
2	1.02010	1.03023	1.04040	1.05063	1.06090	1.07123	1.08160	1:09203	1.10250
3	1.03030	1.04568	1.06121	1.07689	1.09273	1.10872	1.12486	1:14117	1.15763
4	1.04060	1.06136	1.08243	1.10381	1.12551	1.14752	1.16986	1:19252	1.21551
5	1.05101	1.07728	1.10408	1.13141	1.15927	1.18769	1.21665	1:24618	1.27628
6	1.06152	1:09344	1:12616	1:15969	1 19405	1.22926	1.26532	1:30226	1:34010
7	1.07214	1:10984	1:14869	1:18869	1 · 22987	1.27228	1.31593	1:36086	1:40710
8	1.08286	1:12649	1:17166	1:21840	1 · 26677	1.31681	1.36857	1:42210	1:47746
9	1.09369	1:14339	1:19509	1:24886	1 · 30477	1.36290	1.42331	1:48610	1:55133
10	1.10462	1:16054	1:21899	1:28008	1 · 34392	1.41060	1.48024	1:55297	1:62889
11	1·11567	1·17795	1.24337	1:31209	1·38423	1:45997	1:53945	1.62285	1.71034
12	1·12683	1·19562	1.26824	1:34489	1·42576	1:51107	1:60103	1.69588	1.79586
13	1·13809	1·21355	1.29361	1:37851	1·46853	1:56396	1:66507	1.77220	1.88565
14	1·14947	1·23176	1.31948	1:41297	1·51259	1:61869	1:73168	1.85194	1.97993
15	1·16097	1·25023	1.34587	1:44830	1·55797	1:67535	1:80094	1.93528	2.07893
16	1·17258	1.26899	1·37279	1.48451	1.60471	1.73399	1.87298	2.02237	2·18287
17	1·18430	1.28802	1·40024	1.52162	1.65285	1.79468	1.94790	2.11338	2·29202
18	1·19615	1.30734	1·42825	1.55966	1.70243	1.85749	2.02582	2.20848	2·40662
19	1·20811	1.32695	1·45681	1.59865	1.75351	1.92250	2.10685	2.30786	2·52695
20	1·22019	1.34686	1·48595	1.63862	1.80611	1.98979	2.19112	2.41171	2·65330
21	1·23239	1:36706	1.51567	1.67958	1.86029	2.05943	2·27877	2.52024	2.78596
22	1·24472	1:38756	1.54598	1.72157	1.91610	2.13151	2·36992	2.63365	2.92526
23	1·25716	1:40838	1.57690	1.76461	1.97359	2.20611	2·46472	2.75217	3.07152
24	1·26973	1:42950	1.60844	1.80873	2.03279	2.28333	2·56330	2.87601	3.22510
25	1·28243	1:45095	1.64061	1.85394	2.09378	2.36324	2·66584	3.00543	3.38635
26	1·29526	1:47271	1.67342	1.90029	2·15659	2.44596	2.77247	3·14068	3·55567
27	1·30821	1:49480	1.70689	1.94780	2·22129	2.53157	2.88337	3·28201	3·73346
28	1·32129	1:51722	1.74102	1.99650	2·28793	2.62017	2.99870	3·42970	3·92013
29	1·33450	1:53998	1.77584	2.04641	2·35657	2.71188	3.11865	3·58404	4·11614
30	1·34785	1:56308	1.81136	2.09757	2·42726	2.80679	3.24340	3·74532	4·32194
31	1:36133	1.58653	1.84759	2·15001	2·50008	2·90503	3·37313	3·91386	4.53804
32	1:37494	1.61032	1.88454	2·20376	2·57508	3·00671	3·50806	4·0×998	4.76494
33	1:38869	1.63448	1.92223	2·25885	2·65234	3·11194	3·64838	4·27403	5.00319
34	1:40258	1.65900	1.96068	2·31532	2·73191	3·22086	3·79432	4·46636	5.25335
35	1:41660	1.68388	1.99989	2·37321	2·81386	3·33359	3·94609	4·66735	5.51602
36	1·43077	1.70914	2.03989	2·43254	2·89828	3·45027	4·10393	4·87738	5·79182
37	1·44508	1.73478	2.08069	2·49335	2·98523	3·57103	4·26809	5·09686	6·08141
38	1·45953	1.76080	2.12230	2·55568	3·07478	3·69601	4·43881	5·32622	6·35848
39	1·47412	1.78721	2.16474	2·61957	3·16703	3·82537	4·61637	5·56590	6·70475
40	1·48886	1.81402	2.20804	2·68506	3·26204	3·95926	4·80102	5·81636	7·03999
41	1.50375	1.84123	2·25220	2.75219	3·35990	4.09783	4 99306	6.07810	7:39199
42	1.51879	1.86885	2·29724	2.82100	3·46070	4.24126	5 19278	6.35162	7:76159
43	1.53398	1.89688	2·34319	2.89152	3·56452	4.38970	5 40050	6.63744	8:14967
44	1.54932	1.92533	2·39005	2.96381	3·67145	4.54334	5 61652	6.93612	8:55715
45	1.56481	1.95421	2·43785	3.03790	3·78160	4.70236	5 84118	7.24825	8:98501
46	1.58046	1.98353	2:48661	3·11385	3·89504	4.86694	6:07482	7:57442	9:43426
47	1.59626	2.01328	2:53634	3·19170	4·01190	5.03728	6:31782	7:91527	9:90597
48	1.61223	2.04348	2:58707	3·27149	4·13225	5.21359	6:57053	8:27146	10:40127
49	1.62835	2.07413	2:63881	3·35328	4·25622	5.39606	6:83335	8:64367	10:92133
50	1.64463	2.10524	2:69159	3·43711	4·38391	5.58493	7:10668	9:03264	11:46740

Present Value of £1 due 1 to 50 years (or other equal periods) hence, at

Year or Period.	1 %.	1.5 %.	2 °/。	2.5 °/.	3 %	3.5 %	4°/.	4.5 %	5 °/.
1	*99010	*98522	*98039	*97561	*97087	*96618	*96154	*95694	95238
2	*98030	*97066	*96117	*95181	*94260	*93351	*92456	*91573	•90703
3	*97059	*95632	*94232	*92860	*91514	*90194	*88900	*87630	•86384
4	*96098	*94218	*92385	*90595	*88849	*87144	*85480	*83856	•82270
5	*95147	*92826	*90573	*88385	*86261	*84197	*82193	*80245	•78353
6	*94205	*91454	*88797	*86230	*83748	*81350	*79031	*76790	*74622
7	*93272	*90103	*87056	*84127	*81309	*78599	*75992	*73483	*71068
8	*92348	*88771	*85349	*82075	*78941	*75941	*73069	*70319	*67684
9	*91434	*87459	*83676	*80073	*76642	*73373	*70259	*67290	*64461
10	*90529	*86167	*82035	*78120	*74409	*70892	*67556	*64393	*61391
11	*89632	*84893	*80426	*76214	*72242	*68495	*64958	*61620	*58468
12	*88745	*83639	*78849	*74356	*70138	*66178	*62460	*58966	*55684
13	*87866	*82403	*77303	*72542	*68095	*63940	*60057	*56427	*53032
14	*86996	*81185	*75788	*70773	*66112	*61778	*57748	*53997	*50507
15	*86135	*79985	*74301	*69047	*64186	*59689	*55526	*51672	*48102
16	*85282	*78803	*72845	•67363	*62317	*57671	*53391	*49447	*45811
17	*84438	*77639	*71416	•65720	*60502	*55720	*51337	*47318	*43630
18	*83602	*76491	*70016	•64117	*58739	*53836	*49363	*45280	*41552
19	*82774	*75361	*68643	•62553	*57029	*52016	*47464	*43330	*39573
20	*81954	*74247	*67297	•61027	*55368	*50257	*45639	*41464	*37689
21	-81143	*73150	•65978	*59539	*53755	*48557	*43883	*39679	*35894
22	-80340	*72069	•64684	*58086	*52189	*46915	*42196	*37970	*34185
23	-79544	*71004	•63416	*56670	*50669	*45329	*40573	*36335	*32557
24	-78757	*69954	•62172	*55288	*49193	*43796	*39012	*34770	*31007
25	-77977	*68921	•60953	*53939	*47761	*42315	*37512	*33273	*29530
26	•77205	*67902	*59758	*52623	*46369	*40884	*36069	*31840	*28124
27	•76440	*66899	*58586	*51340	*45019	*39501	*34682	*30469	*26785
28	•75684	*65910	*57437	*50088	*43708	*38165	*33348	*29157	*25509
29	•74934	*64936	*56311	*48866	*42435	*36875	*32065	*27902	*24295
30	•74192	*63976	*55207	*47674	*41199	*35628	*30832	*26700	*23138
31	*73458	*63031	*54125	*46511	*39999	*34423	*29646	*25550	*22036
32	*72730	*62099	*53063	*45377	*38834	*33259	*28506	*24450	*20987
33	*72010	*61182	*52023	*44270	*37703	*32134	*27409	*23397	*19987
34	*71297	*60277	*51003	*43191	*36604	*31048	*26355	*22390	*19035
35	*70591	*59387	*50003	*42137	*35538	*29998	*25342	*21425	*18129
36	*69892	*58509	*49022	*41109	*34503	*28983	*24367	*20503	•17266
37	*69200	*57644	*48061	*40107	*33498	*28003	*23430	*19620	•16444
38	-68515	*56792	*47119	*39128	*32523	*27056	*22529	*18775	•15661
39	*67837	*55953	*46195	*38174	*31575	*26141	*21662	*17967	•14915
40	*67165	*55126	*45289	*37243	*30656	*25257	*20829	*17193	•14205
41	*66500	*54312	•44401	*36335	*29763	*24403	*20028	16453	·13528
42	*65842	*53509	•43530	*35448	*28896	*23578	*19257	15744	·12884
43	*65190	*52718	•42677	*34584	*28054	*22781	*18517	15066	·12270
44	*64545	*51939	•41840	*33740	*27237	*22010	*17805	14417	·11686
45	*63906	*51171	•41020	*32917	*26444	*21266	*17120	13796	·11130
46	*63273	*50415	*40215	*32115	*25674	*20547	•16461	13202	*10600
47	*62646	*49670	*39427	*31331	*24926	*19852	•15828	12634	*10095
48	*62026	*48936	*38654	*30567	*24200	*19181	•15219	12090	*09614
49	*61412	*48213	*37896	*29822	*23495	*18532	•14634	11569	*09156
50	*60804	*47500	*37153	*29094	*22811	*17905	•14071	11071	*08720

40 EXPONENTIALS & HYPERBOLIC FUNCTIONS.

х	e ^x	e-x	cosh x	sinh x	tanh x	log cosh x	$\log \sinh x$
·1	1·1052	*9048	1:0050	*1002	·0997	0·0022	1:0007
·2	1·2214	*8187	1:0201	*2013	·1974	·0086	n:3039
·3	1·3499	*7408	1:0453	*3045	·2913	·0193	n:4836
·4	1·4918	*6703	1:0811	*4108	·3799	·0339	n:6136
-5	1.6487	*6065	1.1276	*5211	'4621	.0522	ıı·7169
·6	1.8221	*5488	1·1855	*6367	.5370	·0739	"8039
·7	2.0138	*4966	1·2552	*7586	.6044	·0987	"8800
·8	2.2255	*4493	1·3374	*8881	.6640	·1263	"9485
·9	2.4596	*4066	1·4331	1:0265	.7163	·1563	0 0114
1·0	2.7183	*3679	1·5431	1:1752	.7616	·1884	0 0701
1·1	3.0042	*3329	1.6685	1:3357	*8005	*2223	0·1257
1·2	3.3201	*3012	1.8107	1:5095	*8337	*2578	0·1788
1·3	3.6693	*2725	1.9709	1:6984	*8617	*2947	0·2300
1·4	4.0552	*2466	2.1509	1:9043	*8854	*3326	0·2797
1·5	4.4817	*2231	2.3524	2:1293	*9051	*3715	0·3282
1.6	4 '9530	·2019	2·5775	2:3756	*9217	*4112	0·3758
1.7	5 '4739	·1827	2·8283	2:6456	*9354	*4515	0·4225
1.8	6 '0496	·1653	3·1075	2:9422	*9468	*4924	0·4687
1.9	6 '6859	·1496	3·4177	3:2682	*9563	*5337	0·5143
2.0	7 '3891	·1353	3·7622	3:6269	*9640	*5754	0·5595
2·1	8·1662	*1225	4·1443	4.0219	9704	*6175	0.6044
2·2	9·0251	*1108	4·5679	4.4571	9758	*6597	0.6491
2·3	9·9742	*1003	5·0372	4.9370	9801	*7022	0.6935
2·4	11·0232	*0907	5·5570	5.4662	9837	*7448	0.7377
2·5	12·1825	*0821	6·1323	6.0502	9866	*7876	0.7818
2.6	13·4638	*0743	6·7690	6·6947	*9890	*8305	0.82 57
2.7	14 8797	;0672	7·4735	7·4063	*9910	*8735	0.8696
2.8	16·4446	*0608	8·2527	8·1919	*9926	*9166	0.9134
2.9	18·1741	*0550	9·1146	9·0596	*9940	*9597	0.9571
3.0	20·0855	*0498	10·068	10·018	*9951	1*0029	1.0008
3·1	22·1980	*0450	11·122	11.076	*9959	1·0462	1.0444
3·2	24·5325	*0408	12·287	12.246	*9967	1·0894	1.0880
3·3	27·1126	*0369	13·575	13.538	*9973	1·1327	1.1316
3·4	29·9641	*0334	14·999	14.965	*9978	1·1761	1.1751
3·5	33·1155	*0302	16·573	16.543	*9982	1·2194	1.2186
3.6	36·5982	·0273	18°313	18 285	*9985	1·2628	1·2621
3.7	40·4473	·0247	20°236	20 211	*9988	1·3061	1·3956
3.8	44·7012	·0224	22°362	22 339	*9990	1·3495	1·3491
3.9	49·4024	·0202	24.711	24 691	*9992	1·3929	1·3925
4.0	54·5982	·0183	27°308	27 290	*9993	1·4363	1·4360
4·1	60·3403	*0166	30·178	30·162	*9995	1:4797	1·4795
4·2	66·6863	*0150	33·351	33·336	*9996	1:5231	1·5229
4·3	73·6998	*0136	36·857	36·843	*9996	1:5665	1·5664
4·4	81·4509	*0123	40·732	40·719	*9997	1:6099	1·6098
4·5	90·0171	*0111	45·014	45·003	*9997	1:6533	1·6532
4.6	99·4843	*0101	49·747	49·737	*9998	1·6968	1.6967
4.7	109·9472	*0091	54·978	54·969	*9998	1·7402	1.7401
4.8	121·5104	*0082	60·759	60·751	*9999	1·7836	1.7836
4.9	134·2898	*0074	67·149	67·141	*9999	1·8270	1.8270
5.0	148·4132	*0067	74·210	74·203	*9999	1·8705	1.8704

GEOMETRIES ON THE NEW LINES.

P		14 DAY USE RETURN TO DESK FROM WHICH BORROWED									
Books	LOAN This book is due on the las on the date to w. Renewed books are subje	t date stamped below, or hich renewed.									
	30Nov 59PW REC 100 NOV 10 1959 REC 0 00 JAN 25 1960	-									
	* 120ct/63 2F REC'D LD SEP 28'63-1 PM										
J. S. MA Descriptive (Trigonometr Mensuration Mensuration Land Survey Mensuration			_								
These of Mensuration Tables of seven decim	LD 21A-50m-4,'59 (A1724s10)476B	General Library University of California Berkeley	ry, he to								

*A Miracle of Scholarship and Cheapness combined "--Journal of Behanion

GHAMBERS'S TWENTIETH CENTURY DICTIONARY OF THE ENGLISH LANGUAGE

Edited by the Rev. THOMAS DAVIDSON, Editor of "Chamber's English Dictionary."

1224 pages. Cemy Svo.

Price

3/6



1224 pages, demy 8rc.

Price

3/6

Also, quarter bound, 5s.; half merocco, 6s. 6d. net.

This marvellously Cheen Book.

Pronouncing, Explanatory, Etymological,

Twelve Blands, M. apr. Tallenby Joseph Styo Pages.

Over One Hundred Thousand References. .

All the Most Recent Words, .

Technical and Scientific Terms. .

Coplously Hustrated, . . .

Embodies the Latest Scholarship

"Supersedes all other cheap Dictionaries ⁽²⁾]] -W. ROBERTSON NICOL, in British Problem